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# Rural North Dakota's Oil Boom, The Impact On Social Services, And The Implications For The Social Work Profession

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RURAL NORTH DAKOTA'S OIL BOOM, THE IMPACT ON SOCIAL SERVICES,  
AND THE IMPLICATIONS FOR THE SOCIAL WORK PROFESSION

by

Julia Christina Dockter Geigle  
Bachelor of Science in Social Work, University of North Dakota, 2007

A Thesis

Submitted to the Graduate Faculty

of the

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In partial fulfillment of the requirements

for the degree of

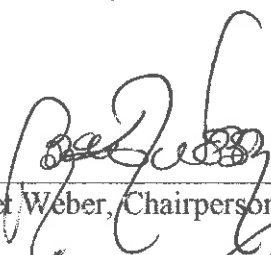
Master of Social Work

Grand Forks, North Dakota

August  
2013

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This thesis, submitted by Julia Christina Dockter Geigle in partial fulfillment of the requirements for the Degree of Master of Social Work from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

  
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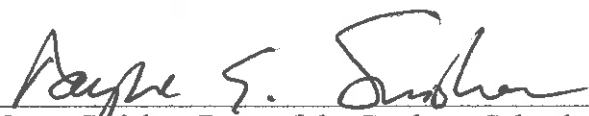
  
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This thesis meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

  
Dr. Wayne Swisher, Dean of the Graduate School

Date

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## ABSTRACT

Technological developments within the oil and gas industry (namely horizontal drilling and hydraulic fracturing, or “fracking”) combined with record-high average oil prices have propelled North Dakota into the midst of the nation’s largest oil boom in decades. Information about the boom has been dominated by the media, while scholarly attention—especially about the social impacts—has been unfortunately limited. Accordingly, the author (an MSW student) and two professors with the Department of Social Work at the University of North Dakota conducted a focus group with the state’s county social service directors to explore the pressures and challenges faced by the social service delivery system. While housing and other related challenges dominated the focus group discussion, the county directors also spoke about the boom’s benefits and the challenges associated with finding effective solutions. The emergent themes from the focus group were juxtaposed against a variety of independent sources, including archival data and government reports. This allowed the researchers to examine how the directors’ narratives aligned with available data. The results highlight social and environmental justice issues that social workers are uniquely qualified to address. The study concludes with implications for the social work profession by recommending future areas of research and suggesting interventions to mitigate the impacts of North Dakota’s oil boom.

## CHAPTER I

### INTRODUCTION

The Great Plains region of the United States is home to North Dakota, a sparsely populated state of about 700,000 people. With less than ten persons per square mile, agriculture marks the largest industry in the predominantly rural state (U.S. Census Bureau, 2012; North Dakota Department of Agriculture, n.d.). However, historically, but especially in the last decade, oil and gas production has significantly enhanced the state's economy. In fact, North Dakota is currently in the midst of the nation's largest oil boom in decades (Mufson, 2012). The boom has been driven by the development of new drilling and extraction technologies (namely horizontal drilling and hydraulic fracturing or "fracking") combined with high oil prices. While other states have endured hardship through the recession, North Dakota's boom has brought a windfall of revenues and jobs. With the fastest growing economy in the United States, North Dakota was the only state to report positive economic growth in 2011 (North Dakota Department of Commerce (NDDOC), 2012). The abundant job opportunities have attracted individuals from all over the nation. Formerly one of the least visited states, North Dakota is now the fastest growing state in the nation. While North Dakota has experienced past booms in the 1950s and 1980s, the current boom dwarfs anything that came before it. Sharply different from past booms, industry experts have projected the state's current boom could last twenty years or longer (North Dakota Petroleum Council, 2012). Yet, amid the boundless

opportunities, the state's infrastructure is overwhelmed resulting in "critical housing shortages and intense pressures on social service systems" (Weber, Geigle, & Barkdull, in press, p. 3).

While North Dakota's booming oil production has caused this previously unnoticed state to have nation-wide and even world-wide recognition, there has been limited scholarly attention focused on the social impacts of the boom. The hundreds of newspaper articles, radio broadcasts, and other media sources have become a widely relied on source of information. However, accuracy is questioned as these sources are often overly reliant on anecdotal information and may be overstated. The realities of the oil boom are often obscured by the dominant narratives produced by these sources. Furthermore, the human costs of the boom including impacts on social service systems are largely undocumented. As a prominent, local reporter stated, "an issue that deserves attention is the social service structure...the legislature has given the county social service agencies little to no attention despite the stress of the population going up exponentially" (Thompson, 2011). Accordingly, the intention of this study is to better understand the pressures and challenges facing the social service delivery system in the midst of North Dakota's rapid energy development. Additionally, findings point to needs for future scholarly work and inform potential interventions to ameliorate possible negative impacts of the boom.

This project is a collaborative effort among a three person research team.<sup>1</sup> The team consisted of the author, a Master of Social Work (MSW) student, and two

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<sup>1</sup> The research team wrote a condensed version of the current report. The article was submitted to *Social Work* (NASW Press) and approved for publication on June 16, 2013.

professors from the University of North Dakota (UND) Social Work Department, Dr. Bret Weber (the Principal Investigator (PI)) and Dr. Carenlee Barkdull.<sup>2</sup> A cross-sectional study, the data was collected at one specific point in time. Thus, the findings illustrate a snapshot of the boom's impacts. On January 11, 2012, the author and PI conducted a focus group of County Social Service directors to explore the pressures and challenges facing the social service delivery system in the context of North Dakota's current, ongoing oil boom. The emergent themes from the focus group were juxtaposed against a variety of independent sources such as archival data and government reports. This allowed the researchers to employ a more empirical approach and to determine which narratives were confirmed by available data. While housing and related challenges dominated the focus group, the county directors also spoke of the boom's benefits and the challenges to finding solutions.

The oil boom has had an important and significant impact on the delivery of social services across the state of North Dakota, especially in oil-producing counties. The following report begins with a literature review of the boom-related social science research, a history of North Dakota's oil booms and the associated literature of its current boom, and the gaps in the literature. A methods section delineates the data collection, analysis process, and a consideration of potential limitations. The emergent themes and sub-themes are discussed in the data analysis and study findings followed by a discussion section, which outlines recommendations for future studies. The report ends with the findings' implications for the social work profession.

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<sup>2</sup> The research project served as a first step in a larger, interdisciplinary project lead by the two social work professors named above.

## CHAPTER II

### LITERATURE REVIEW

Energy-related development from resources such as oil, gas and petroleum, coal, and uranium “have long been connected to periods of rapid expansion (“booms”) and decline (“busts”)” (Weber, Geigle, & Barkdull, in press, p. 3). “Boomtown,” the colloquial term referencing the communities experiencing these “booms,” tends to be characterized by “a) unprecedented population growth within the space of a very few number of years; b) greatly expanded employment opportunities; and c) heavy demands on community services and facilities” (Camasso & Wilkinson, 1990, p. 5).

Over the last several decades, researchers have identified and documented the numerous social, environmental, and economic impacts, both positive and negative, experienced by these communities. The literature on the cyclical expansion and contraction of extractive industries in varied locations, including developing countries, is extensive.

The present review of the literature is divided into two parts. For generalizability purposes, the first part examines the general trends in literature on the social impacts on primarily rural and semi-rural communities in western United States resulting from chiefly oil and gas development. While the literature suggests that social impacts have been predominantly negative, there is also evidence that impacts were relatively benign. Additionally mentioned are social work contributions to the literature. The second part



provides a brief context of current and past oil and gas extraction in North Dakota and reviews the available literature on North Dakota's current oil boom. Although the media offers the most up-to-date information, these sources are often based on anecdotal evidence and are sometimes sensationalized. Additionally, the limited scholarly accounts of North Dakota's boom tend to lack a social impact focus and a rigorous methodological approach. Consequently, the gaps in both the social science literature of energy booms and the current literature on North Dakota's oil boom supports a need for the present study. Following a review of the social science western energy boomtown literature, a description of North Dakota's past and present oil booms will be provided, along with the associated literature.

#### Social Impacts of Western Energy Boomtowns: Trends in the Literature

A substantial amount of literature, primarily from the 1970s and 80s, examines the social costs on western rural and semirural communities experiencing rapid growth due to resource-extraction. Kohrs's (1974) comparison of boom and non-boom counties in Wyoming provides one of the earliest reports of this research. He found that oil producing counties endured higher rates of divorce, alcoholism, depression, attempted suicide, school truancy, school delinquency, criminal behavior, and emergency room visits. Little (1977) found similar results of social trauma in Montana, North Dakota, Colorado, and Arizona. Examining mental health indicators from the oil boom of 1970-74 around Rock Springs, Wyoming, Weisz (1979) found that while the population increased roughly 100%, related caseloads increased by 857%. A rise in alcoholism, crime, and juvenile delinquency was discovered in other rural nature resource-dependent areas (Cortese & Jones, 1977; Brookshire & d'Arge, 1980) as well as increased mental

health needs (Freudenburg, Bacigalupi, & Landoll, 1982). In fact, Freudenburg et al (1982) tracked caseload in one mental health center over 7 years, finding that while the population increased by 90%, the increase in total caseload was 189%. Citing Hanks, Miller, & Uhlmann (1977)'s paper presentation at the professional symposium of the National Association of Social Workers, Davenport & Davenport (1979) name socio-physical problems of impact areas, including “ ‘alcoholism, gambling, prostitution, family crises, truancy, school drop-outs, and mental health and personal adjustment problems (p. 131).

Emerging from the earlier studies is support for the *social disruption hypothesis* that suggests rapid growth leads to “a period of generalized crisis and loss of traditional routines” including less effective community services (England & Albrecht, 1984, p. 230). Numerous scholarly articles maintain the *social disruption hypothesis* such as Brabant (1993); Brown, Geertsen, and Krannich (1989); and Camasso and Wilkinson (1990). For instance, Camasso & Wilkinson (1990) and Bates (1977), found that conditions, such as family conflict, child abuse/neglect, crime, alcohol and drug abuse, disproportionately increase in boom areas due to overcrowding. More recently, Goldenberg, Shoveller, Koehoorn, and Ostry (2010) conducted interviews with young people and social service providers in a booming oil town in rural Canada. Emerging themes include education issues such as fewer people graduating high school and consequently entering the oil industry at younger ages; increased addiction rates; and lack of housing with the oil industry eliciting a mixed message of needing workers, but not having the housing to support them.

Despite the numerous reports that support *social disruption hypothesis*, others refute it. In particular, Smith, Krannich, and Hunter (2001) evaluated social well-being in Wyoming and Utah, finding that a sharp rebound followed boom-bust periods with no evidence of lasting disruption. Two other studies examined the relationship in oil activity and crime as a pattern of social disruption in semirural Louisiana communities and found little support for the disruption hypothesis and that impacts were benign on the community (Forsyth, Luthra, & Bankston, 2007; Luthra, Bankston, Kalich, & Forsyth, 2007). Bland, Orn, & Sinha (1984) compared mental health prevalence in a stable rural town to a rural town experiencing rapid economic growth from resource extraction. They found that while the overall stress level was higher in the boom town, mental health issues were more prominent in the control town (Bland et al, 1984). Studying the oil and gas boom in Caldwell, Texas, Copp (1983) found that personal adjustment indicators, such as crime, did increase, but not disproportionate to the population increase. He concludes, generally the “changes appear to be mild and within the normal range of community adaptation” (Copp, 1983, p. 1). Similarly, Greider and Krannich (1983) studied perceived well-being and personal stress indicators in two small western towns; a stable town and an energy impacted community. Their findings failed to provide “strong and consistent support for the ‘boomtown disruption’ hypothesis; indicating that the debate over the validity of the hypothesis needs to continue considering the complexity of the cyclical expansion and contraction of resources (Greider & Krannich, 1983, p. 19). Critiquing the hypothesis, Wilkinson, Thompson, Reynolds, and Ostresh (1982) suggest that some literature backing social disruption lacks credibility. Specifically, he posits that a study examining the social costs of a boomtown community in Wyoming (Gilmore and

Duff, 1975) makes conclusions overly dependent on anecdotal information such as data from opinion surveys (Wilkinson et al, 1982).

The need for a contemporary, qualitative analysis on the social impacts of oil and gas development in rural United States, namely North Dakota, becomes apparent upon appraisal of the available literature. Additionally, a present study is constructive to further evaluate the social disruption hypothesis that is consistently mentioned in the boom-related social science research on rural and semirural areas in western United States. While the literature supporting social disruption is greater than studies that refute it, articles critiquing the hypothesis also exist (e.g., Finsterbusch, 1982). Largely quantitative in nature and primarily from the 1970s and 80s, the available literature provides a step in developing a scientific understanding of the social effects of energy impacted communities. However, there is a shortage of qualitative research on boom/bust cycles, necessary to more comprehensively capture the multiple realities of the human costs of energy booms. Because of the dearth of “in-depth longitudinal research, little is known about the degree to which social problems observed during rapid growth periods...may persist after the boom” (Smith, Krannich, & Hunter, 2001, p. 425). Furthermore, while some studies offer ideas to mitigate challenges resulting from an energy boom, absent from the literature are more specific interventions, mechanisms for implementation, and tools for assessment. A distinguished exception is the social work research on energy boom’s social impacts in which a specific intervention is delineated along with the implementation process

### *Social Work Contributions to the Literature*

Lacking in the social science literature on energy-impacted areas is a specific focus on the human service delivery system from a social work perspective. Notable exceptions include a book, *Boomtowns and Human Services* (1979), a collection of articles compiled by two University of Wyoming social workers, Judith Ann and Joseph Davenport, and an article by a former University of Wyoming faculty member who worked alongside them. Edited by the Davenports, *Boomtowns and Human Services* (1979), contains articles on “human service problems, issues, and strategies in communities affected by rapid energy development” from the perspectives of a variety of disciplines (p. 1). Included are two articles authored by the editors, which cite literature illustrating the social consequences of rapid growth associated with energy development, describe the history and implementation of a program to alleviate these challenges, and recommend other proposed solutions. Another article describes the innovative Wyoming Human Services Project (WHSP), which was developed by University of Wyoming faculty to identify and palliate related social problems (Uhlmann, 1981). The basis of the program was to train college students in areas such as social work, clinical psychology, nursing, law, and law enforcement “to work as members of multidisciplinary human services teams. Once students graduated...they were placed, on a yearly basis, in energy-impacted Wyoming communities” (Uhlmann, 1981, p. 19). The project originated from exacerbating human service needs in energy-impacted areas compounded by barriers to expanding the human service delivery system. Uhlmann (1981) affirms the project’s success according to project evaluations since its inception in 1975. In essence, this

literature asserts that social workers' involvement is critical to ameliorate the exacerbated human service needs that are inevitable of rural, energy-impacted communities.

### North Dakota's Past and Current Booms

From a historical perspective, oil exploration in North Dakota dates back to the 1920s. However, 1951 marks the first successful oil well in the state, drilled on a farm south of Tioga. North Dakota as a state has experienced three distinct oil boom periods, based on an aggregate of sources (e.g., Bohnenkamp, Finken, McCallum, Putz, & Goreham, 2011). The first occurred from 1951-55, the second during the late 1970s and early 80s, and the third and current from about 2005 to present (Kroshus, 2011). Yet, the North Dakota Petroleum Council's most recent economic impact report, authored by Bangsund and Hodur (2013), indicates *four* periods of rapid growth marking 1994-97 as the third boom. While oil production expanded (and later contracted) during this time, it appears that no other sources support the notion that 1994-97 constituted a boom, especially in comparison with the rapid growth of the 50s and 80s.

North Dakota's oil production has resulted because the western part of the state is home to the Bakken and Three Forks Sanish shale oil deposits (Bakken/Three Forks), more commonly referred to as the Bakken Formation (Figure 1).

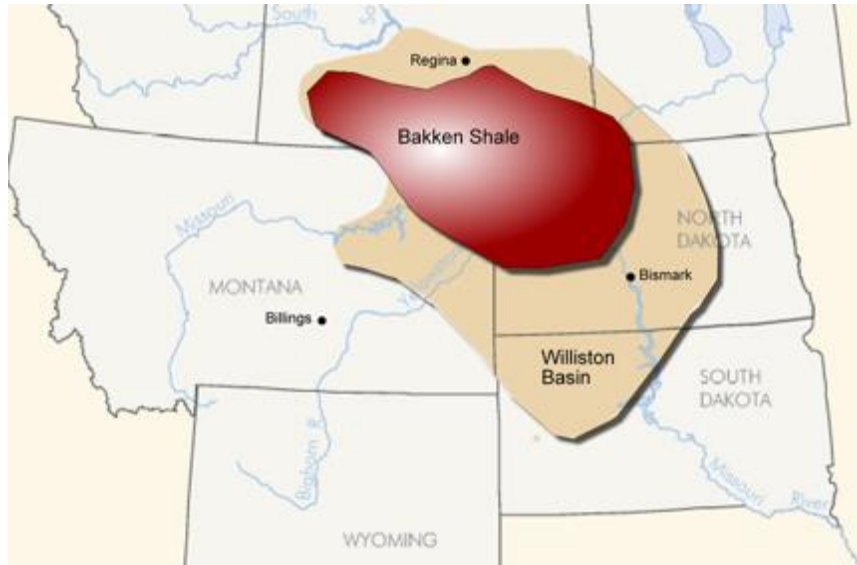


Figure 1. Map of the Bakken Shale Formation in the Williston Basin of Montana, North Dakota, South Dakota, and south-central Canada (Bakken Resources, Inc., n.d.).

Little scholarly attention has been given to North Dakota's earlier booms with respect to social impacts. A notable exception is The Williston Report: The Impact of Oil on the Williston Area of North Dakota (1958). The report indicates that the principle impacts from the 1951 to 1955 boom included housing shortages and more expensive public services in the face of greater needs related to community services, schools, and transportation services (Campbell, Kelley, Talbot, & Willis, 1958). According to the 1981 North Dakota Geological Survey, North Dakota ranked tenth in United States oil production. The authors predicted a successful future for oil and gas development in North Dakota (Gerhard & Anderson, 1981). Yet, concerns from the second boom in the late 1970s and early 1980s focused on challenges to pay for infrastructure made obsolete by the sudden bust (Lindholm, 2010). Despite sharp differences, the perceived lessons from those earlier experiences have become guiding principles with a reluctance to build permanent housing or other physical or social infrastructure. However, residents who

lived through the last bust feel their communities are resilient and that the current boom will last much longer (Haga & Koumpilova, 2010).

North Dakota is currently in the midst of the nation's largest oil boom in decades. The development of the Bakken Formation has become lucrative in the last seven years as a result of technological advances in oil extraction and increases in oil prices (Mufson, 2012). During North Dakota's first oil boom, vertical drilling was utilized. Improvements in oil extraction technologies marked the second boom when horizontal or directional drilling became available (Mayda, 2011). About one in seven wells were economically viable. The enhancement of horizontal drilling and development of hydraulic fracturing ("fracking") greatly contributed to the success of North Dakota's present boom. Fracking involves injecting a mixture of water, chemicals, and sand into the oil well that breaks up the rock and forces the oil from the fractures. It has become a controversial and unregulated technique in oil and natural gas drilling (Mayda, 2011). The technological improvements in oil extraction methods has equated to about 95% of wells being economically successful (W. Gosnold, personal communication, May 19, 2013). With these methods available, the U.S. Geological Survey (USGS) estimates the Bakken Formation contains between 3.0 and 4.3 billion barrels of recoverable oil, making it larger than all USGS oil assessments of the lower 48 states and the largest continuous oil accumulation in the United States (Mayda, 2011). Estimates from January 2012, the time of the focus group, place North Dakota fourth<sup>3</sup> in the nation in oil production, following Texas, Alaska, and California (Sullivan, 2012). At the time of this study's data collection,

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<sup>3</sup> Estimates from May 2012 now place North Dakota second, trailing only Texas, in oil production (Associated Press, 2012).



oil extraction was occurring in 17 of 53 counties in North Dakota including Billings, Bottineau, Burke, Divide, Dunn, Golden Valley, McHenry, McKenzie, McLean, Mercer, Mountrail, Renville, Slope, Stark, Ward, and Williams (Figure 2) (Putz, Finken, & Goreham, 2011). The “oil field,” “oil patch,” or just “the patch” are colloquial terms to reference these 17 counties.<sup>4</sup>

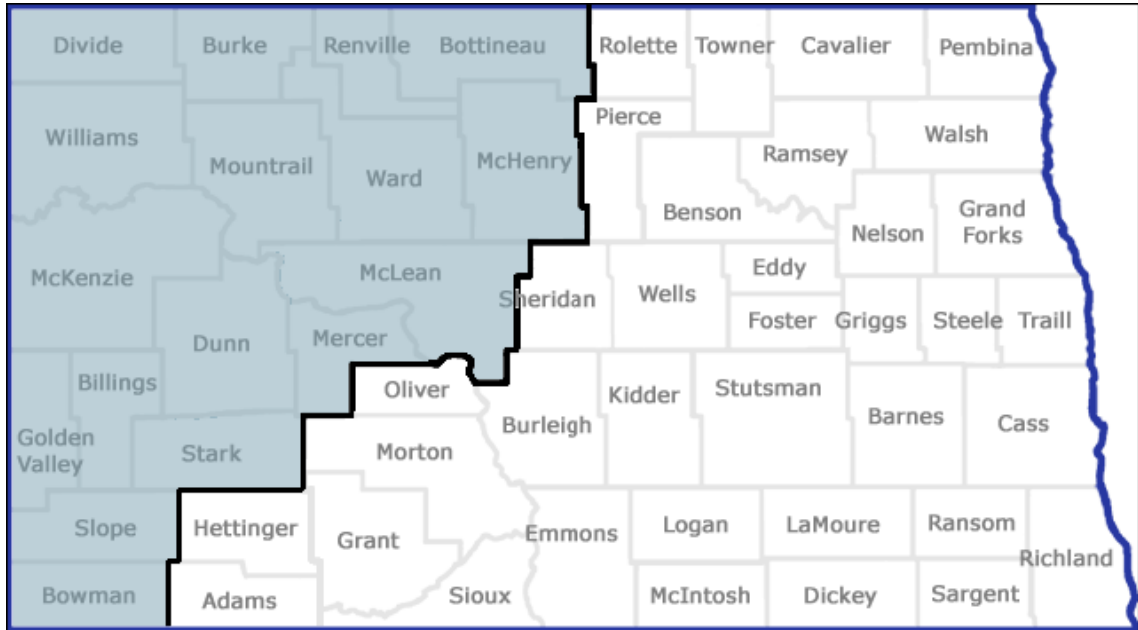


Figure 2. Map of oil producing counties in North Dakota. Map courtesy of North Dakota Department of Human Services (<http://www.nd.gov/dhs/locations/countysocialserv/>), color-coded by author.

### *The Literature on North Dakota's Current Oil Boom*

The information on North Dakota's current oil boom is derived from primarily two categories: (1) the media such as newspaper stories, radio, television, and documentaries and (2) archival data derived from government and other official sources, including legislative testimony, state government sponsored housing studies, and a survey of health care workers, among others. There has been minimal scholarly attention focused

<sup>4</sup> Presently oil extraction is occurring in 19 counties with the addition of Hettinger and Adams counties (North Dakota Association of Oil and Gas Producing, 2013).

on the oil boom, especially in regards to social impacts; thus the media serves as the chief source of information. However “the business of newspapers is to sell stories and there is a tendency to swing between hysterical reports of crime and euphoric tales” of prosperity (Weber, Geigle, & Barkdull, in press, p. 7). Furthermore, media reports lack an empirical basis, and tend to be overly reliant on anecdotal information. The following is a summary and analysis of the literature on North Dakota’s present, ongoing oil boom, with particular attention to social costs.

“The media—especially newspaper stories, radio, television, and documentaries—offer the most up-to-date information about the current, ongoing oil boom” (Weber, Geigle, & Barkdull, in press, p. 7). Receiving widespread local and even national attention, newspapers, television, and radio broadcasts generally promote stories about the abundant jobs and economic prosperity brought by the boom (e.g., Holeywell, 2011). The boom’s challenges most depicted by the media include housing issues, unprecedented increases in traffic, and deteriorating roads (e.g., Nasser, 2011). Articles and broadcasts often connect a general lack of affordable and adequate housing as a causal factor of other problems such as increased homelessness, transitory living arrangements, displacement of vulnerable citizens, and employee attraction and retention difficulties (e.g., MacPherson, 2011; Sulzberger, 2011). Newspaper reporters in 2010 produced over 50 articles under the title *Running with Oil*, primarily portraying the history of oil in North Dakota, the oil extraction process, economic growth, and copious job opportunities. Less than a dozen of the articles considered social consequences including insufficient human service funding, a lack of affordable childcare, increased crime, housing issues, and increased traffic (Forum Communications Company, 2010).

Another article documented Healthcare Administrators across North Dakota's oil patch. The administrators indicated that the local health service systems are not equipped to meet the increased volume, severity, and diversity of cases (Springer, 2011).

Two documentaries offer notable exceptions to the concentration on prosperity. *Boom Town: Oil Boom or Bust*, includes concerns about economic and environmental issues, along with reports of community disruptions and inequities in overall benefits (Libert & Druckerman, 2011). *Crude Independence*, considers the impacts of the boom on infrastructure and housing issues, and calls for increased law enforcement due to significantly increased crime rates (Hutton, 2009).

While the media offers ample information, it often promotes the positive side of oil and gas development, dramatizes the challenges, and at times, portrays anecdotes as facts. For instance, both national and local articles discuss increases in drunk driving, abuse of methamphetamines and other drugs, vandalism, domestic violence, sexual assault, and escort services in western North Dakota (e.g., Jenkinson, 2011). Articles citing that crime has doubled and tripled in oil patch communities are not uncommon (e.g., Ellis, 2011). However, authors generally fail to mention the proportional relationship between the increase in crime and population. Furthermore, quotations from police officers are used to cite criminal activity as opposed to statistics. A widely disseminated memo that was later debunked is another example of the media's unreliability. The Oil Impact Memo, a list of 35 social impacts, was depicted as being generated by the ND Sheriff's and Deputies Association, and later communicated at their meeting. This information was cited in the Fargo Forum, a North Dakota newspaper, and several other newspaper articles as directly coming from law enforcement (e.g., Monteau,

2012). A few weeks following the memo's dissemination, Tom Isern of Prairie Public publically debunked the memo, confirming it was not developed by the North Dakota Sheriffs & Deputies Association (Isern, 2012). Finally, a media source's blatant misrepresentation of flaring is another notable example of its unreliability. An article denotes that the picture below (Figure 3) depicts flaring, the intentional burning off of natural gas, a more environmentally conscious alternative to releasing the extra natural gas into the air. However, flaring does *not* create smoke as illustrated in Figure 4. The black smoke in Figure 3 is characteristic of a controlled burn of an oil pit. Thus the reporter who published the picture perhaps did not do the necessary research to accurately identify the picture, which may have been published to sensationalize purposes. Whatever the case, the above examples, along with others, demonstrate that while the public largely gets their information about the boom from various media outlets, it may not be accurate.



Figure 3. Picture of a controlled oil pit burn, inaccurately portrayed by the media as flaring (CorpWatch, 2012).



Figure 4. Picture of a gas flare (North Dakota Department of Mineral Resources, 2012).

Given the relatively recent time frame of these rapid changes, and with the location of the state's two largest universities on its *eastern* border, little scholarly research on the boom's varied social impacts has yet been undertaken or made available. Distinguished exceptions include Graner and Pederson's (2011) survey of healthcare workers and reports by state universities such as Dickinson State University (DSU) and Minot State University (MSU). Lacking scholasticism, yet providing beneficial information, governmental agencies have prepared reports exploring the boom's various effects (e.g., Ondracek, Witwer, & Bertsch, 2010). While the above studies have offered insights into the boom's varied effects, most lack the academic rigor necessary to stimulate comprehensive solutions.

The following offers a brief summary of the findings from the limited accounts that currently exist on the oil boom's human costs. Graner and Pederson's (2011) study that was mentioned above surveyed health care facility leaders and nurses from northwestern North Dakota. The lack of accessible, affordable, and adequate housing was the central theme drawn from the surveys. Other themes include increased traffic and

accidents, insufficient resources for first responders, and challenges hiring health and social service workers (Graner & Pederson, 2011). Another study involved a team of researchers from NDSU who conducted focus groups and interviews consisting of (1) NDSU Extension Service employees<sup>5</sup> and (2) non-Extension workers. The study's purpose was to "determine concerns noted in the Bakken region as a result of oil development; the steps that are already being taken to address these concerns; and the steps that are still needed" (Bohnenkamp et al, 2011, p. 4). Resulting concerns from the data included quality of living issues, housing and cost of living, crime, and strain on service organizations, among others. Participants identified existing programs as well as innovative programs to help ameliorate the boom's challenges (Bohnenkamp et al, 2011). A third account comprised of respondents from the outreach meetings and surveys distributed by DSU and MSU to identify priority areas of concern resulting from the boom. Examples consist of housing, roads/traffic, workforce, law enforcement and emergency response, and infrastructure (DSU, MSU, & GPEC, 2011). Mentioning social costs, a government sponsored housing study examined housing needs in select northwest North Dakota communities. The studies are expected to continue for the next 20 years at 5-year intervals. Essentially, the study's outcomes point to a need to accommodate the communities' growing population by building temporary as opposed to permanent housing to avoid overbuilding (Ondracek, Witwer, & Bertsch, 2010).<sup>6</sup> Initiated by the

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<sup>5</sup> The NDSU Extension Service, stationed in the NDSU campus in Fargo, ND, has centers in counties across the state. Their mission is to extend education to North Dakota residents of all ages and backgrounds with an emphasis on strengthening agriculture.

<sup>6</sup> The housing study resulted from a series of studies by the North Dakota Department of Commerce and other agencies which determined housing and transportation to be the areas need of infrastructure development.

Office of the Governor, state agencies toured 14 western North Dakota cities to assess “immediate and long-term impacts” throughout the region (North Dakota Office of the Governor, 2012, p. 1). The report of the tour findings involved areas where the state plans to have a significant response such as transportation, housing, and safety. Published in February 2012, the report was updated in May 2012 (North Dakota Office of the Governor, 2012). Another study referencing the oil boom, examines the economic impact that Mountrail County Health Center (MCHC) has on Mountrail County, an oil producing county. Similar to the Graner and Pederson (2011) article, the study states that the oil boom has led to not only increased volume of patients, but also different types of medical cases, deteriorating road conditions, and lack of housing difficulties all of which impact the health care delivery system (Miller, 2011).

The finite literature on the social impacts of North Dakota’s present oil boom has helped define and mitigate the impacts; however, missing is the essential rigor to accurately assess and develop interventions as well as a concentration on social impacts apart from housing and the healthcare delivery system. The scholarly accounts do not provide a sound methods section to impart validity and reliability on the studies’ conclusions. For instance, Graner and Pederson (2011)’s study states that a short survey consisting of open-ended questions was distributed to healthcare workers. Yet, the study does not indicate the *process* used to develop the survey and analyze the survey’s responses. The study by the NDSU researchers includes the instrument used for data collection; however, absent is the methodological approach to appraise the data. It appears that a deductive approach was utilized in which the researchers first developed categories and then fit the data into established themes. Additionally, the present

literature lacks a focus on ascertaining the boom's social impacts such as potential income disparities, mental health issues, and child welfare concerns. Although housing and the healthcare delivery system is examined in the context of the boom, the housing study only examines six of the dozens of western North Dakota cities (Ondracek, Witwer, & Bertsch, 2010). Objectivity is questioned as Ondracek et al.'s report is a government sponsored study completed by a law firm out of a western North Dakota city. Furthermore, the oil boom's effect on the healthcare industry is explored at a superficial level and the study states that "a review of existing literature does not reveal any studies that quantify the impact that this profitable industry is having on health care" (Miller, 2011, p. 10).

Appraisal of the boom-related social science literature and accounts of North Dakota's past and present booms establishes the need for greater study. Specifically, the abundance of quantitative literature from the 1970s and 80s, supports the importance of a qualitative, contemporary study. Researchers need to establish baseline data for a longitudinal study. The widespread journalistic accounts often lack credibility and so additional studies must employ a more empirical approach and seek to delineate a clearer understanding of the social impacts of North Dakota's current oil boom. The work in this thesis seeks to address, at least to some degree, those shortcomings.



## CHAPTER III

### STUDY DESIGN AND METHODS

This preliminary study is part of a larger, interdisciplinary project aimed at developing a greater empirical understanding of the social and cultural impacts of the oil boom on North Dakota communities. In addition to informing future phases of the project and other research, the researchers hope to raise critical consciousness among the public about the boom's social impacts and to cultivate "potential interventions that may ameliorate" the boom's "negative effects" (Weber, Geigle, & Barkdull, in press, p. 8). To explore the social impacts of the boom a focus group was used to discern the perspectives of North Dakota's county social service directors. Grounded theory was employed as the research method to guide data collection and analysis. This study is exploratory in nature as there is virtually an absence of scholarly work on the social impacts of the boom. Thus grounded theory is a well-suited research method as its purposes are to "build rather than test theory" and to "identify, develop, and relate the concepts that are the building blocks of theory" (Strauss & Corbin, 1998, p. 13). Audio- and video-recorded, the focus group session was transcribed verbatim and analyzed inductively using the constant comparative method (Maykut & Morehouse, 1994).

#### Data Collection Method

Social service agencies are on the forefront of delivering human and community services, including economic assistance, child welfare services, and supports to elderly

and disabled individuals. As such, county social service directors who oversee service provision across the state have firsthand knowledge of the boom's impact on longer term residents as well as newly arrived workers within and outside of the oil patch.

Furthermore, insights from these administrators is a powerful source of information that falls outside of available, official documentation. Consequently, purposive sampling was used to select county social service directors as the study participants. The Social Service Board is the official name of the collective group of county social service directors. Thus the directors are an easily identifiable and distinct group.

North Dakota's 38 county social service directors manage the social service agencies in the state's 53 counties (several directors oversee services in multiple counties). The majority of North Dakota's counties are several hours from metropolitan centers, have been primarily dependent on agriculture, have aging populations, and have, until recently, dealt with the consequences of long-term population loss. The state's county social service directors are fairly homogenous, reflecting the state's dominant European-American immigrant groups (e.g., Scandinavian or Germans from Russia). Their relative homogeneity, the desire to capture the dynamic context of the oil boom, and the opportunity provided by regular monthly meetings in the state's capitol made the focus group format attractive as the study's method.

Focus groups work well to uncover the range of perceptions, attitudes, and ideas people have about experiences. More data is elicited as compared to one-on-one interviews as "communication, insight, and self-disclosure commonly occur," stimulating ideas and insights from other participants (Ferguson & Islam, 2008, p. 220). Considering the complexity and novelty of the oil boom, the focus group allowed researchers to

“explore participants’ interpretations of their realities” (e.g., difficulty tracking conditions such as homelessness), clarify abstract statements, extract specific examples to illustrate their accounts, and stimulate conversation amongst group members (Ferguson & Islam, 2008, p. 220). These considerations and the opportunity to ensure participants understand questions, lends itself to producing more valid results.

### *Participants*

The focus group consisted of 20 self-selected participants who had responded to an invitation e-mailed to all 38 directors overseeing social services in North Dakota’s 53 counties. Of the 20 individuals, 65% were female (n=13) and 35% were male (n=7) providing a comparable sampling of the entire group of directors. Additionally, the researchers created a typology of four classifications based on service area proximity with North Dakota’s oil patch. Figure 5 illustrates the four types: (1) Type 1: epicenter of the oil patch (red), (2) Type 2: in the oil patch (light orange), (3) Type 3: on the periphery of the oil patch (dark yellow), and (4) Type 4: distant from the oil patch (yellow).

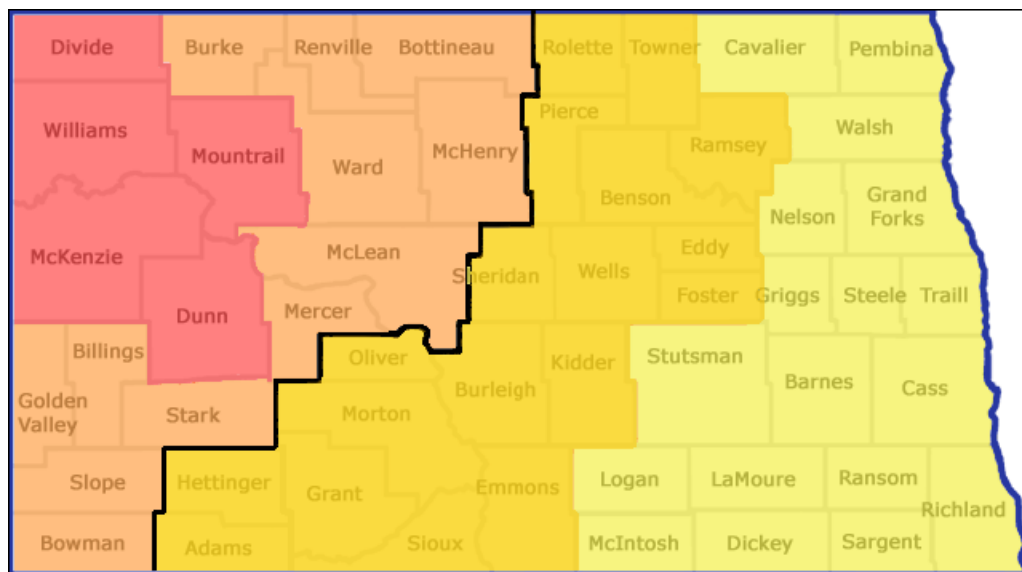


Figure 5. Map of North Dakota depicting typologies of counties in relation to North Dakota’s oil patch. Map courtesy of North Dakota Department of Human Services (<http://www.nd.gov/dhs/locations/countysocialserv/>), color-coded by author.

The focus group included participants from all four county types with a representative sampling of the entire group of directors (Table 1). See Appendix A for a listing of focus group directors' full names<sup>7</sup> classified by typology as well as directors' initials used to cite paraphrased statements and quotes in the *Data Analysis and Study Findings* Chapter.

Table 1. Names of four typologies of counties in relation to oil patch, number of focus group participants within each typology, and number of counties in each typology. Note: one participant directs four counties spanning across two typologies, thus he is listed twice.

<b>Location in Relation to Oil Patch</b>	<b>Number of Directors in Focus Group from County Typology</b>	<b>Number of Counties in County Typology</b>
<b>Type 1: Epicenter of Oil Patch</b>	<b>2</b>	<b>5</b>
<b>Type 2: In the Oil Patch</b>	<b>4</b>	<b>12</b>
<b>Type 3: On the Periphery of the Oil Patch</b>	<b>7</b>	<b>18</b>
<b>Type 4: Distant from the Oil Patch</b>	<b>8</b>	<b>18</b>

### *Logistics*

The research team consisted of the PI, a social work professor from the University of North Dakota (UND); an MSW student who was also a graduate research assistant (GRA) at the time (the author); and UND's MSW director/social work professor. Following the development of the study's purpose and methodology, the PI and GRA

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<sup>7</sup> Participants were notified on the consent form that full confidentiality and anonymity would not be maintained.

completed and submitted the UND Human Subjects Review Form to be reviewed by UND's Institutional Review Board (IRB) at the beginning of October 2011. After approval on October 17, 2011, the PI contacted the Director of the Social Service Board to describe the study and inquire about getting on a meeting agenda to carry out a focus group. Upon consent, the author created a spread sheet with all the directors' names, contact information, and the counties they direct. The Director of the Social Service Board stated she would not be in attendance, eliminating overt power differentials among group members, thus enhancing utility of focus group results. An e-mail was then sent out to the Social Service Board members: thanking them for the opportunity; explaining the project's purpose; listing the questioning route<sup>8</sup> (not including prompts and follow-up questions); and providing an opportunity to submit written information (Alternative Procedures form, see Appendix B). A consent form was attached for the directors to sign, if they chose to participate. The original consent form (see Appendix C) designated participant consent to "being *audio-taped*." Because the Human Subjects Review form refers to "written, audio, and visual" recordings, a protocol change request was submitted. Approved on January 6, 2012, the updated consent form (see Appendix D) signified consent to "being *recorded*."

The researchers collaboratively developed a questioning route employing previous research and experience. Three key questions were originally generated and modified to ensure they were open-ended, simple, clear, and begged for further discussion. Two additional questions were added aiming to better achieve the purpose of

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<sup>8</sup>A questioning route is "the series of questions used in a focused interview" (Krueger & Casey, 2000, p. 40).

the study. Questions were strategically ordered from general to specific, starting with a question that could be easily understood. Follow-up questions were identified underneath each main question to be used as further prompts on topics (see Appendix E for questioning route).

A dual moderator structure was utilized to execute the 90-minute focus group in which the PI and author alternated between two roles. Specifically, one moderator was the primary facilitator, ensuring topics were covered, while the other moderator took field notes and monitored body language, facial expressions, and other para-verbal/nonverbal communication to capitalize on opportunities to clarify as appropriate. The session was both video- and audio-taped. While no monetary incentives were provided, the researchers offered “chippers” to participants, a specialty chocolate item native to Grand Forks. A signed thank you letter, including contact information, was mailed to each participant about a week and a half following the focus group.

#### Data Analysis Method

The recorded focus group session was transcribed verbatim by the author. Field notes were incorporated as applicable and the video was used to identify speakers. Included next to each participant were the county(ies) he/she supervised. However, the typology (Figure 5), derived by the researchers, was not included to minimize influencing data analysis. The constant comparative method was employed to analyze the data as it includes steps “proven essential to rigorous analysis, particularly...when working with a research team” (Maykut & Morehouse, 1994). Furthermore, the method was advised by a research team member, a professor with expertise in qualitative research methods and

proficient in qualitative data analysis. The constant comparative method of data analysis is illustrated in Figure 6.

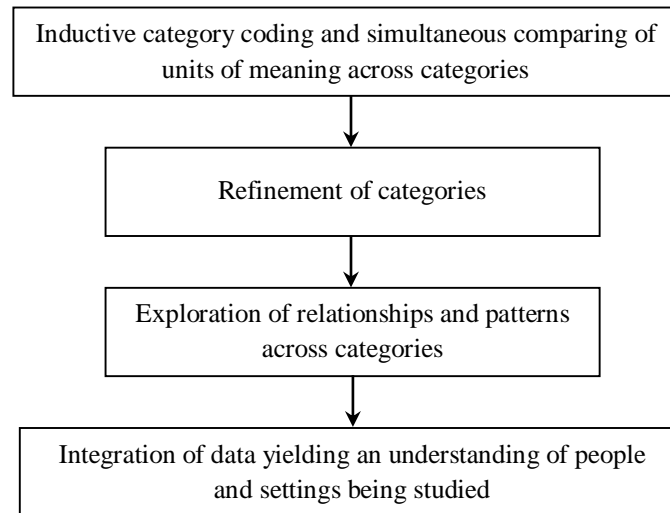


Figure 6. Constant comparative method of data analysis (Maykut & Morehouse, 1994, p. 135).

Each member of the research team independently coded the data. Members carefully read and reread the transcript and jotted down recurring words, phrases, and topics; the discovery sheet (Maykut & Morehouse, 1994). Subsequently each member, using a photocopy of the transcript, unitized the data, identifying units (‘chunks’) of meaning in the text. The word or phrase to illustrate the units of meaning was written next to the clearly identified excerpt of text. Then units of meaning were examined and placed within provisional categories, utilizing the discovery sheet to assist in identifying potential categories. Units fitting into more than one grouping were temporarily put in all applicable categories. Those that appeared outside the focus of the study were put in a “miscellaneous” category to be revisited. Through the process of continually comparing units of meaning to each other and grouping those units within existing or new categories, initial categories were refined, reshaped, merged, or omitted. Relationships and patterns across categories were explored and higher-order categories were developed.

The units of meaning clustered under a category were studied to develop a collective meaning; a rule of inclusion. Written as a propositional statement, the rule of inclusion served “as the basis for including (or excluding) subsequent [units of meaning] in the category” (Maykut & Morehouse, 1994, p. 139). An example is illustrated as follows:

<i>Discovery sheet:</i>	Housing issues
<i>Unit of meaning:</i>	Shortage of housing
<i>Category name and code:</i>	Lack of accessible, affordable, and adequate housing
<i>Rule of Inclusion:</i>	Increased homelessness, price-gouging, and substandard living conditions result from lack of accessible, affordable, and adequate housing

Engaging the next steps of data analysis, the team of researchers met to discuss their independently derived emergent categories. Each transferred their tentative established categorization of themes onto the same large white board that elicited a rich discussion about differences. The vastly similar codes, especially amongst the author and PI, demonstrated inter-coder reliability. Through a consensual process, the researchers revised and further redefined codes and categories. Specifically, the researchers merged their categorization schemas, examining relationships amongst categories to a greater extent. Two new categories emerged through this process. Additionally, units of meaning initially categorized as miscellaneous were discussed and coded accordingly. The process led to sixteen higher-order categories from the initial coding process all under three major themes: 1) Housing and Social Challenges; 2) Benefits; and 3) Journey to Solutions (Table 2).



Table 2. Relationship of categories and themes.

<b>Housing and Social Challenges</b>		<b>Benefits</b>	<b>Challenges to Solutions</b>
Housing Challenges	Price-gouging, sub-standard conditions, homelessness	Fantastic economic development	The need for new terminology and tracking mechanisms to reflect changing realities
	Man camps	Partnerships with oil companies	Barriers to sufficient response from the state legislature
	Difficulty hiring	Reduced cash assistance needs in the oil patch	New challenges to human service systems
Social Challenges	Child welfare issues	Building community capacity	
	Cultural tensions and rapid social change		
	Overwhelmed law enforcement, increased reports of domestic violence, and drug trafficking and sex trade		
	Unprecedented traffic problems and deteriorating roads		
	Environmental issues		
	Property tax concerns		

To increase validity and credibility of the study's outcomes, "the team triangulated focus group information as extensively as possible, utilizing" reports, archival data, and "an additional focus group consisting of a slightly different population of human service professionals" (Weber, Geigle, & Barkdull, in press, p. 10). Triangulation data consisted of two of the four types of triangulation; "data triangulation" (data from another focus group) and "methodological triangulation" (archival data and reports derived from government agencies and other official sources) (Denzin, 1970, p. 301; 307). Thus, results were generated by juxtaposing triangulation data against the backdrop of the emergent themes from the focus group. A second focus was conducted as "data triangulation," in which the same method (focus group) was used to collect data (Denzin, 1970, p. 301). Held on March 6, 2013, the second focus group consisted of 13 social workers serving the area of central North Dakota, counties both in and on the periphery of the oil patch. The group was 85% female (n=11) and 15% male (n=2). Additional "methodological triangulation," another triangulation type, included submitted written reports by one male county social service director who was not able to attend the original focus group and another female representative from a state human service agency. The "methodological triangulation" also consisted of archival data from police and sheriff departments and coalitions as well as minutes and reports from municipal government, school districts, and legislative hearings (Denzin, 1970, p. 307). These sources allowed the researchers to examine consistencies and inconsistencies among data that utilized different methodologies to acquire information. Aware of the permeating nature of journalistic and anecdotal accounts, employing triangulation to the focus group

information enhances the trustworthiness of the study results (Maykut & Morehouse, 1994).

### *Limitations*

Study findings should be viewed with caution as the study methods have inherent limitations” (Weber, Geigle, & Barkdull, in press, p. 10). As a cross-sectional as opposed to a longitudinal study, the study’s outcomes represent only a particular point in time. Additionally, the focus group consisted of a “fairly small sample of human service providers” and may lack the detail of an individual interview (Weber, Geigle, & Barkdull, in press, p. 10). The aforementioned issues may weaken the reliability, validity, and generalizability of results, characteristic of qualitative research.

In an attempt to counteract these limitations, the findings from the focus group were triangulated with different data sources of varying methodology. For instance, utilizing another focus group (same method) consisting of human service workers servicing different, yet overlapping populations, allows for a richer triangulation to support study findings. Archival data such as statistics from police and sheriff departments and coalitions were quantitative accounts compared with the qualitative data, again strengthening the findings. Additionally, a focus group gives the opportunity for participants to hear other’s contributions which likely “sparks new insights” and/or “helps them develop their ideas more clearly” which is not possible with individual interviews (Maykut & Morehouse, 1994, p. 104). Laying the foundation for a credible study, the researchers not only built an audit trail of their research efforts, but also worked as a team, “keeping each other honest...and raising questions of bias when necessary” (Maykut & Morehouse, 1994, p. 147). Finally, while future studies are

recommended to ascertain the social impacts of the oil boom, this study “attempts to provide an empirically-grounded interpretation and representation of a complex and rapidly changing phenomenon” (Weber, Geigle, & Barkdull, in press, p. 10).

## CHAPTER IV

### DATA ANALYSIS AND STUDY FINDINGS

The following in-depth description and analysis of the focus group discussion is broken down into three major themes: (1) Housing and Social challenges, (2) Benefits, and (3) Challenges to Solutions. Under each of the higher-order themes, subthemes are first considered in relation to specific responses from the County Social Service Directors. Their comments are then triangulated (considered, confirmed, or contradicted), with various sources to include legislative testimony; school, police, and other government agency reports; housing data; scholarly accounts; journalistic accounts; written reports from human service workers; and an additional focus group, held in March 2012, with human service center employees.

#### Housing and Social Challenges

With the population influx accompanying the dramatic growth generated by oil and gas development, the issue of housing was the most pervasive theme throughout the focus group. The directors often elucidated housing as the nexus of other multidimensional social issues. Additional social challenges were discussed as well, such as environmental concerns and unprecedented traffic and deteriorating roads.

#### *Housing challenges*

The subject of housing permeated the focus group discussion. “The general lack of housing and shortage of affordable housing connect to more specific problems

including (1) price gouging, sub-standard living conditions, homelessness; (2) temporary labor housing known as *man camps*; and (3) difficulties in hiring due to a lack of available housing” (Weber, Geigle, & Barkdull, in press, p. 11).

*Price gouging, sub-standard living conditions, and homelessness*

The directors continually associated the housing issue to overlapping issues of price gouging, sub-standard living conditions, and increased rates of homelessness. From the epicenter of the patch, one director spoke fervently about significant rent increases and the dearth of available housing: “rents are jumping \$1000 to \$1500 at a crack, while renters are typically given only one month notification of the increase” (LR). While suggesting that local landlords with a greater “sense of community” are less likely to impose these hikes, she admitted that they are rapidly selling apartment buildings to outside interests and finding it hard to resist raising rents in the competitive market, including rents “going from \$800 to \$1800 a month” (LR).

Affordability is coupled with a general housing shortage. The director of Ward County, contending with the compounded impacts of severe flooding in the spring of 2011 and oil activity, stated “there’s no place to live,” especially since “many homes were destroyed in the flood” (CB). Other directors, spanning all area types, connected price gouging to additional concerns. For instance, inflated rent increases have forced vulnerable individuals either voluntarily or through eviction, into substandard arrangements, including many elderly and persons with disabilities who are on fixed incomes. The Williams County director spoke of an apartment building where a number of elderly and disabled individuals were subjected to a three-fold rent increase from \$800

to \$2400 per month (LR). Price gouging and general housing shortages often constrain individuals to sub-standard living conditions, or faced with becoming homeless.

Sub-standard living conditions include overcrowding and/or inhabitable living arrangements. No longer able to afford rent, individuals and families move in with other families to save money. Others coming to the community without pre-arranged housing and discover a lack of affordable housing seek the same option. “In some instances, you have three families living together in a two bedroom apartment,” creating increased stress on the inhabitants (LR). Even counties located at least 120 miles from the edge of the oil patch are experiencing boom-related housing shortages. Workers unable to find housing near their jobs in western North Dakota migrate east to counties that have been experiencing depopulation for decades and families end up in long-abandoned homes “that should have been bulldozed” (MB). Directors spoke of people moving into “houses that haven’t been lived in for years,” insufficient water and heating systems, and people trying to stay warm by leaving cooking oven doors open or living with tangled masses of extension cords due to the overuse of space heaters (TC; HP).

Unable to find housing of any sort many are simply left homeless. The directors cited multiple examples of individuals and families residing in trucks, cars, and recreational vehicles. For instance, a director from one of the top oil producing counties in the state (Type 1) indicated that “we have a truck stop where there is upwards of 300 people there at night living in the trucks they drive” (TP). In an area where homelessness was almost unheard of before the boom, the Williams County director indicated that the Williston school district is reporting children who are homeless (LR). Without sufficient resources to measure and monitor the situation school systems are perhaps the best gauge

of homelessness, but it is likely that numbers are higher than indicated because many families are fearful “that social services would come and get their children if they were aware that they were living in their vehicles” (LR). Housing issues extend as far as 200 miles from the drilling activity, since people run out of money trying to get to jobs in the oil patch and end up in urban areas far removed from the boom, inquiring about the location of the homeless shelter, and emergency assistance (KB).

The concerns expressed by the County Social Service Directors are reflected in a variety of corroborating sources including legislative testimony, human service agency data, school board meeting minutes, another focus group consisting of human service employees, and media sources (North Dakota Legislative Management (NDLM), 2012; Bekkedahl, 2011; Ondracek, Witwer, & Bertsch, 2010; DSU, MSU, & GPEC, 2011; NDCHP & RCAC, 2012; Williston Public School Board Minutes, 2012; 2<sup>nd</sup> Focus Group, 2012; MacPherson, 2011; Thompson, 2011).

Outside data clearly confirms problems with insufficient housing inventory. Housing experts indicate a need for between 5-8% apartment vacancy to maintain a “good market of available units” (NDCHP & RCAC, 2012). However, even in Fargo--North Dakota’s largest and most eastern city, far removed from direct oil activity--the vacancy rate is only 3.8%. In the state capitol of Bismarck, which is closer but still not in the patch, rates are 1.0%. Dickinson, in the heart of the oil producing region, has vacancy rates of 0.5%. In Minot (impacted by flooding and its proximity to the patch) and Williston (at the epicenter of the oil boom), rates are at 0%. In fact, preliminary data from the North Dakota Coalition for Homeless People, Inc. (NDCHP) and Rural Community



Assistance Corporation (RCAC) indicate that in many communities in North Dakota, there is simply no rental availability at any cost (2012).

In addition to availability issues, housing prices have skyrocketed over the past several years. According to a presentation by the Williston City Commissioner to legislators at the 2011 November Special Session, lack of affordable housing is a primary concern in Williston. Rent for a 1-2 bedroom apartment had increased from about \$500 in 2005 to over \$2000 (Bekkedahl, 2011). On January 26, 2012, just two weeks after the focus group with County Social Service Directors, the North Dakota Energy Development and Transmission Committee heard testimony, including that from the mayor of Watford City, in Williams County that “affordable rental housing for non-oilfield employees has been our number one challenge for 5 years” (NDLM, 2012, Appendix L, p. 9).

Anecdotes from surveys as well as the series of outreach meetings held as part of the Western North Dakota Energy Impact Symposia Project pointed to an overwhelming consensus that housing is a primary issue in western North Dakota. The project was a collaborative effort between Dickinson State University (DSU), Minot State University (MSU), and the Great Plains Energy Coordinator (GPEC) to explore economic and social impacts of the oil boom (DSU, MSU, & GPEC, 2011). These findings indicated that the housing shortage is (1) causing rent to increase substantially which is especially onerous for those on fixed incomes and (2) causing many individuals to “reside in cars, trailers (not mobile homes), and substandard housing” (DSU, MSU, & GPEC, 2011, p. 2). Multiple newspaper articles have also highlighted this issue, underscoring the resultant displacement of vulnerable populations. For instance, according to an article consisting of

interviews from multiple senior citizens in Williston, an 82 year-old woman who had expected to live her remaining years in Williston was forced to move when her rent increased threefold along with anew, mandatory \$2000 deposit (MacPherson, 2011). The second focus group of social workers echoed these concerns, with one woman stating: “There are many people who hear about the jobs here but . . . discover they don’t have the skills . . . and don’t have the money to return home: then, they are homeless here.” (2<sup>nd</sup> Focus Group, 2012). Similarly, one county director, independent of the original focus group, wrote of rents “going from \$350 to \$1500 per month,” for elderly citizens on fixed incomes, and offered the following summary:

Housing is the one issue that stands out about all other issues. If you have a ‘normal’ job that pays \$10 to \$15 per hour, or even more, you cannot afford to live here. \$2000 per month is the starting point for anything that is fit for human habitation. It is common for a family to show up looking for housing. [They are] living in a camper or tent, [have] a good job...and we have nothing. (B. Quigley, personal communication, December 13, 2011).

Multiple sources similarly confirm the concerns about homelessness. The North Dakota Coalition for Homeless People (NDCHP)’s July 2011 study confirmed the connection between increased homelessness and a growing inability to pay rent (2012). Preliminary data from the NDCHP’s and Rural Community Assistance Corporation (RCAC)’s point-in-time surveys from July 27, 2011 similarly illustrate increased homelessness across the state including the rate nearly doubling in Williston from January 2011 to July 2011—the rate had previously increased twofold from January 2010 to January 2011 (2012). The report suggested that rates are significantly higher due to the

“challenges in conducting a homeless count.” For instance, Williston area volunteers estimate that only 10% of those with no housing were reached (NDCHP & RCAC, 2012). A local radio journalist noted that while many long-term residents had become homeless due to spikes in rent: “They are proud people who have lived in town their whole lives [and] don’t want to be labeled as homeless” (Thompson, 2012).

Corroborating data clearly confirmed the County Social Service Directors concerns about housing accessibility, affordability, habitability, and homelessness. These are serious issues of social and economic injustice that are occurring amid the oil boom’s rapid accumulation of wealth (Weber, Geigle, & Barkdull, in press).

### *Man camps*

The directors closest to the oil patch discussed concerns about temporary labor housing commonly referred to as man camps. These span a continuum that includes company-owned “organized, structured man camps” along with less formal groups of RVs located in parking lots (LR). These have emerged throughout the oil patch with various social and infrastructural impacts. One director noted that camps were originally embraced as a way to prevent “rents from escalating, [but] it’s too late. That’s already happened” (TP). Another pointed out, “the rents in the man camps are [as high as] \$3000 a bed” with beds often shared by a few people across different shifts and workdays (LR). These camps often result in population increases that surpass infrastructural capacity. One county set a moratorium on man camps until there is “a plan in place to decide where to go from here,” but the directors explained that limits in one county create unintended consequences including new camps simply being built in neighboring counties (LR).

Outside sources support the directors' considerations about the temporary labor housing, man camps, in western North Dakota. The preponderance of man camps has resulted from a resistance to build permanent housing due to concerns from the last bust in the 1980s (Lindholm, 2010). Additionally, recommendations from a housing study, initiated by the Department of Commerce, states that cities need to "plan to accommodate its peak population with *temporary* and *semi-permanent* housing and plan to accommodate its sustainable population with permanent housing options" (Ondracek, Witwer, & Bertsch, 2010, p. 7). A *New York Times* article echoes the directors' concerns, stating that all types of camps are increasing, "straining utilities, overburdening emergency services and aggravating relatively novel problems like traffic jams, long lines and higher crime" (Sulzberger, 2011). Legislative testimony delivered two weeks after the focus group, confirmed a six-month moratorium in one county that had started the previous fall and an 18-month hold in a neighboring county (NDLM, 2012, Appendix J). One county's Planning and Zoning Department conceded that the lack of a comprehensive plan had allowed rapid development to exceed infrastructure. Thus capping temporary housing indirectly limits employers' (i.e. oil companies) hiring practices. As a result, the Williams County moratorium was extended indefinitely in March 2012. As a result, the infrastructure was not equipped to handle the population influx.

#### *Difficulty hiring*

The directors illustrated that the oil boom and attendant population increase has created the need for more services and more employees to provide those services. Yet housing problems present significant difficulties hiring those employees. "We have every

business in our community looking for employees” (CD). Two directors from oil patch counties noted being unable to hire needed social workers simply because “there is no place to live” (LR, CB). One recounted “we have three social work jobs open right now and we have no applicants” (CB). At the epicenter of the patch, a director stated, “the county has [started to] come up with a plan to provide housing for county employees” to meet the demand for staff (LR). However, in Ward County, contending with the dual issue of the oil boom and flood, “there is no place to put housing due to the flood, and while “an area for trailers” is “supposed to be developing,” progress has “been slow” (CB).

This was echoed in surveys from western North Dakota residents and in legislative testimony. Data from outreach meetings and surveys indicate that more employees are essential to meet the rapidly growing “demand for law enforcement, emergency response, public health, social services, public works, and medical services” (DSU, MSU, & GPEC, 2011, p. 4). During the 2011 legislative session, directors of Human Service Centers in the oil field testified that the housing shortage is making recruitment of needed staff difficult (SB 2012, House Appropriations Committee Minutes, 2011). In January 2012, a school superintendent in the patch described to legislators that applicants are turning down job offers due to housing cost and lack of availability (NDLM, 2012, Appendix F, p. 2).

In summary, the most pressing concern expressed by the County Directors was the lack of affordable housing across the state. Related issues included price gouging, sub-standard housing, homelessness, man camps, and difficulties in hiring.

This was broadly supported by a wealth of corroborating sources. In surveys distributed as part of the Western North Dakota Energy Impact Symposia Project, 87% of respondents identified housing as a top priority. The North Dakota Department of Commerce classified housing as one of the top two critical infrastructure needs (along with transportation, discussed below). Consequently, the Department of Commerce partnered with other local government agencies to study and assess the state's housing issues. The first study, completed in 2010, demonstrated "permanent ongoing housing needs in northwest North Dakota communities" to continue "for the next 20 years" with recommended housing studies to be conducted at 5 year intervals (Ondracek, Witwer, & Bertsch, 2010, p. 2). One director, independent of the focus group, succinctly articulated the situation: "Housing is the one issue that stands out above all other issues. Stable reasonable housing is key to most aspects of social services" (B. Quigley, personal communication, December 13, 2011).

### *Social challenges*

In addition to housing, the directors discussed various social challenges connected to the oil boom. Among the more significant were child welfare concerns; cultural tensions and rapid social change; overwhelmed law enforcement, increased reports of domestic violence, and drug trafficking and sex trade; unprecedented road and traffic problems; environmental issues; and property tax concerns.

### *Child welfare concerns*

The county directors highlighted increased child protection and foster care cases and a severe shortage of daycare. They noted the increased caseloads are products of

substandard living conditions, increased drug trafficking, and an inability to rely on formerly utilized, informal support systems.

An epicenter oil patch director signified that affordable housing and substandard conditions have “impacted child protection because of all those people living together and the stresses it causes families” (LR). The director gave an example of a family with five children living in a local retail store parking lot (LR). As examined in a later theme, many of the directors indicated that defining neglect and abuse is becoming more complex in consideration of the new realities brought by the oil boom.

Another Type 1 director indicated other issues are surfacing in their child protection reports such as illegal drug trafficking. Additionally, he stated that because individuals in desperate financial situations are experiencing rapid cash flow, likely for the first time in their lives, “we have parents that aren’t dutiful with their parenting abilities or feeling like they need to be. It’s all about the money” (TP).

Additionally, the inundated foster care system and increased child protection reports, in combination with the housing shortage, have led to a shortage of foster homes. Families who have come to the oil patch to escape struggling economies in other parts of the country often have few connections to the area and cannot easily rely on extended family supports. When a crisis erupts, perhaps one parent is gone working in the oil patch:

They don’t know where to turn. Before we would say don’t you have a family member, neighbor, friend that could help you and we were able to identify some people to try to come to some help that way. Now in response to that, we get I

know nobody...I'm here all by myself. The way we do our caseload has had to change so drastically. (SR).

Finally, compounding a daycare shortage prior to the boom, “the influx of people has only made it worse” (LR). The director, from Williston (a city of about 20,000 people) noted it is in need of about 1800 daycare slots (LR).

The county directors’ observations were repeated by human service center workers in central North Dakota and legislative testimony (2nd Focus Group, 2012; NDLM, 2012). Human service workers reported substantial increases in child protection and foster care cases with subjects in abuse/neglect reports being “increasingly from out of state.” One participant stated that because recently arrived individuals do not have the informal supports used in place of formal foster homes, the current foster care system is not equipped to meet the new demands (2<sup>nd</sup> Focus Group, 2012). During a legislative hearing only two weeks after the focus group, a county commissioner from the epicenter of the oil patch stated, “social services are seeing increased demands in every category, [and] the most critical is our increase in child protection cases” (NDLM, 2012, Appendix P, p. 4). Another county commissioner from the west echoed the daycare shortage, indicating one of the two day cares in the county is closing due to inability to hire. The competitive wages in the oil field as well as surrounding retail businesses and lack of housing contribute to this issue (NDLM, 2012, Appendix Q).

Both the county directors and independent supporting data confirm increased child protection and foster care caseloads in relation to poor habitability, a shortage of foster homes, and a critical shortage of daycare. Outside data was less supportive of the



focus groups' indications that increased caseloads are connected to increased drug trafficking and newly acquired financial resources.

*Cultural tensions and rapid social change*

The directors expressed concern that the immigration of more diverse populations is impacting social services and housing. An epicenter director noted “a significant number of Hispanic individuals” where the previously homogenous culture was dominated by 3rd and 4th generation Scandinavians. This was echoed by a director far removed from the patch: “You have [families] come with different value systems and we have a culture problem sometimes.” Directors noted the previous importance of informal support networks to abate familial and relational issues, whereas many oil industry workers and their families do not have friends and relatives in the area.

We were always pretty fortunate that if you needed to make arrangements for kids you could find friends or relatives to do that. Now if there is an emergency that happens, there is no one. It's made our work more difficult because we have lost one of our most valuable resources, family and community... (SR).

It is important to recognize that this theme was not supported by independent, external sources. The second focus group of human service workers repeated (and even emphasized) this issue:

In our rural areas we have a homogenous population with similar ethnicity and experience. The values of community, the community standards, have been known for generations. I think you hit critical mass pretty quick when you get an influx of people that don't fit the template. (2<sup>nd</sup> Focus Group, 2012).

They also echoed the concern about not being able to utilize community members and extended family: “We are always looking for those local support systems for families [but] they have no support systems here.” Many of the statements from both focus groups were largely anecdotal, and may be explained by the sudden and dramatic disruptions to a way of life that had been little changed for decades. On the other hand, this disconnect with outside sources may be due to the direct nature of social service work.

*Overwhelmed law enforcement, increased reports of domestic violence, and drug trafficking and sex trade*

The focus group included a few comments about inundated law enforcement corresponding to increased domestic violence issues and drug trafficking and the sex trade. One director from the heart of the oil patch reported that: “Law enforcement is totally overwhelmed. So when we call and need a child transported, they are not happy to do it because they don’t have the staff” (LR). The oil patch directors also noted increased reports of domestic violence, exacerbated by the lack of housing (LR, CB, TC). One director believes the housing pressures contribute to domestic disputes and create difficulties in finding safe havens for victims (LR). Additionally, illegal drug trafficking was referenced, but primarily in the context of child protection cases (TP). A participant from the core of the oil patch made nominal mention of adult dancers and prostitution based on a local newspaper article. She cited a newspaper article about strippers migrating from Las Vegas to Williston due to a tenfold increase in pay. Furthermore she stated, “Williston has charged some women for prostitution. There were 4 they charged at one point and another 2-3 at another time. So they are charging some” (LR).

Outside sources indicate a greater prevalence of overwhelmed law enforcement and increased domestic violence than was noted by the directors. Statistics from western

North Dakota sheriff and police departments, themes from outreach meetings and surveys conducted out west, human service agency data, and fugitive literature all indicate the need for greater concern about these issues (DSU, MSU, & GPEC, 2011; Koumpilova, 2010; NDCHP & RCAC, 2012). Statistics from law enforcement officials in the heart of the oil patch demonstrate a significant increase in crime, disproportionate to the population increase (U.S. Census Bureau, 2012; NDLM, 2012; McKenzie County Sherriff's Department, 2012; Mountrail County Sheriff's Department, 2012; Williston City Police Department, 2012). For instance, according to U.S. Census Bureau data, the population increase in an oil producing county was 5% from 2010 to 2011 as contrasted with an approximately 40% and 35% increase in calls for service and inmate population, respectively (U.S. Census Bureau, 2012; Mountrail County Sheriff's Department, 2012). Another county in the oil patch with a 10% population increase experienced a 120% increase in request for extra officers to respond to calls and a 67% increase in calls for service (U.S. Census Bureau, 2012; McKenzie County Sherriff's Department, 2012). During the same period, law enforcement staff has not increased proportionately. Although most counties are attempting to increase their law enforcement staff, they are experiencing difficulty due to lack of housing and higher salaries in the oil fields (DSU, MSU, & GPEC, 2011; NDLM, 2012). While the focus group illustrated the connection between housing pressures and difficulty hiring service workers, they did not specifically mention the impact on law enforcement officials. Similarly, a journalistic account illustrated that law enforcement in a county at the core of the boom has seen a significant increase in domestic violence calls. Because of the housing shortage, individuals are living in closer and more uncomfortable quarters, which likely correlates with increased

tension (Koumpilova, 2010). According to the executive director of the North Dakota Council on Abused Women's Services (NDCAWS), the dearth of housing has made response to domestic disputes difficult (J. Moos, personal communication, June 8, 2012). Police cannot find vacancy in hotels and shelters for the victim. Furthermore, there is no housing available for victims following a temporary stay at a shelter, especially considering that most North Dakota communities lack transitional facilities (J. Moos, personal communication, June 8, 2012). The preliminary data from NDCHP and RCAC's July 2011 study supported this claim, stating "all homeless shelters, domestic violence shelters, and transitional living facilities in the state were full" (2012). Consequently, victims may stay longer at the shelters, causing "programs to have to turn other victims away [as] there's no room" (Michaelson, 2012). Outside sources indicate that these increases had begun at least nine months before the focus group (J. Moos, personal communication, June 8, 2012). Law enforcement officials also report that prostitution is an increasing concern throughout western North Dakota with multiple reports in the last year (Donovan, 2012). Additionally, a newspaper article discusses the social impacts of the oil boom with brief mention of increased availability and use of methamphetamines and other drugs (Jenkinson, 2011).

Data from outside sources suggest that law enforcement and domestic violence issues are having a greater impact in the oil patch than expressed by the directors. Perhaps these issues are outside of the jurisdiction of social services. County Social Services do not often come into contact with crime and domestic disputes, often referring out to the police and sheriff departments and local domestic violence crisis centers (J. Moos, personal communication, June 8, 2012). On the other hand, the focus group's

reference to drug and sex issues parallels the fugitive literature. Possibly these concerns were simply overlooked during the relatively short focus group or have not yet reached a sufficient magnitude in relation to their main concerns.

*Unprecedented traffic problems and deteriorating roads*

Nominally expressed by the focus group were the unparalleled traffic problems and deteriorating roads. One director commented about the declining air quality in western North Dakota linked to increased diesel truck traffic, and another from the heart of the oil patch, followed up that sometimes “there’s a mile of traffic backed up at a stop light” (LR). No other traffic concerns were addressed outside of this solo allusion. Regarding roads, a director cited an oil patch county where “the roads were just getting beat to heck out there” (JM).

The data conspicuously underscores these issues, suggesting a much higher visibility than acknowledged by the directors (NDLM, 2012; DSU, MSU, & GPEC, 2011; Bekkedahl, 2011; Holeywell, 2011; McKenzie County Sherriff’s Department, 2012; Mountrail County Sheriff’s Department, 2012; Williston City Police Department, 2012). This is particularly surprising since outside sources have connected traffic and poor road quality with challenges to delivery of social services (Thompson, 2011; Jacobs, 2010). Roads and traffic were identified as a top concern in western North Dakota according to survey results from Dickinson State University (DSU). Survey respondents and outreach meeting participants expressed “experiencing dangerous road conditions” such as the narrow roads’ inability to contain the novel truck traffic (DSU, MSU, & GPEC, 2011, p. 4). Safety issues were also stressed, supported by law enforcement statistics. For instance, in one oil-producing county, fatal accidents and

reckless/dangerous driver citations have nearly doubled from 2010 to 2011 (McKenzie County Sheriff's Department, 2012). Another experienced a 72% increase in traffic accidents over the same time period, while one of the most heavily impacted oil counties saw an increase of 102% from 2009 to 2011 (Mountrail County Sheriff's Department, 2012; Williston City Police Department, 2012). In legislative testimony, a city commissioner described the need for "road overlays to increase load bearing capacity, the widening of roads, patch and repair work, and complete roadway reconstruction" (Bekkedahl, 2011, p. 11). Later, at an interim legislative committee hearing just two weeks after the focus group was held, multiple city and county leaders discussed the significant impact that the discernible traffic and road problems are having on their constituents (NDLM, 2012).

Heavy truck traffic and severely damaged surfaces compromise personal safety and creates significant delays for social service employees attempting to make home visits (Thompson, 2011; Jacobs, 2010). Social service staff also have to drive to rural areas where elderly clients, part of the Home and Community Based Service Program (HCBS), reside. A director, outside of the focus group stated, "Driving to their home is like entering an obstacle course" (B. Quigley, personal communication, December 13, 2011). Thus, outside data demonstrates that unprecedented traffic and deteriorating roads are negatively impacting the quality of life, general safety, and the delivery of social services far beyond what was expressed in the focus group.

#### *Environmental issues*

Environmental concerns were only a minor theme among the directors. Only one director from the center of the oil patch had anything to say about environmental issues:

There's potential for actually destroying the aquifers and causing all kinds of issues with the water. There's also the possibility that it doesn't have any effect on water whatsoever. And there's also possibility for points in between...so I don't know. (TP).

Reluctant to criticize because of past connections to the oil industry he conceded that the link between toxic water supply and hydraulic fracturing has been proven in Pennsylvania. He also noted that there is "planning to put in pipelines and wells" on tens of thousands of acres including "a state park consisting of a wildlife refuge where people also come and camp." Not explicitly making the connections, he subtly implied environmental degradation.

While not extensively underscored in the outside data, environmental issues have received some modest attention. According to the surveys distributed by DSU to western North Dakota residents, 13% of respondents identified environmental concerns as one of the top five issues facing their community (DSU, MSU, & GPEC, 2011) Major concerns include the consequences of 1) lingering dust in the air from increased traffic, 2) hydraulic fracturing, and 3) spills and leaks. The North Dakota Association of Oil and Gas Producing Counties (2009) produced a video illustrating dust as a safety issue in terms of decreasing visibility, decreasing air quality, and contributing to sickness among humans and livestock. Multiple newspaper articles and the documentary, *Boomtown: Oil Boom or Bust*, mentioned environmental concerns related to hydraulic fracturing, commonly referred to as 'fracking,' and oil spills and leaks (Gunderson, 2012; Wetzel, 2012; Libert, & Druckerman, 2011; Lee, 2010). North Dakota environmental groups are advocating for increased regulations on fracking, dumping, spills, and leaks concurrently

with “the state Legislature [setting] aside \$1 million to sue the EPA [Environmental Protection Agency] if new regulations adversely affect the oil industry” (Gunderson, 2012; Wetzel, 2012). A documentary produced in 2011 captures the voices of farmers whose land has been destroyed as a result of oil spills and leaks (Libert, & Druckerman, 2011). Despite the extent to which environmental issues have gained traction in the literature, economic prosperity is more likely to drive policy decisions.

Overall, the outside data indicates that North Dakota environmental issues are on the radar of the state’s residents at a higher level than suggested by the focus group, especially in relation to increased dust in the air, concerns about hydraulic fracturing, and the damage caused by oil spills and leaks. However, despite the attention to environmental issues in various sources, policy makers seem more focused on immediate economic prosperity than concerns about potential environmental degradation.

#### *Property tax concerns*

A noteworthy issue raised by the County Social Service Directors was about a ballot initiative to abolish property taxes, used to fund multiple governmental projects to include social services, throughout the state. This was at least indirectly related to the boom owing to the reality that “oil industry and lease holders who lived outside of the state would have been among the greatest beneficiaries” of such a change in the state’s tax structure (Weber, Geigle, & Barkdull, in press, p. 15). The directors acknowledged the threat of such a system in which funding would be legislatively appropriated. As counties from across the state would have to compete for the not necessarily guaranteed funding, the directors overwhelmingly expressed opposition to the measure. One director captured this concern with, “how would our needs stack up with not only larger counties,



but oil counties as well?” (KJ). An issue of seemingly great potential consequence in January, the initiative was defeated in a statewide June 2012 election.

### Benefits

While housing and social challenges made up a significant portion of the focus group discussion, “there were frequent references to the oil boom’s benefits” (Weber, Geigle, & Barkdull, in press, p. 17). However, these were almost always tempered with concerns about co-occurring costs. Although media accounts tend to give greater weight to the benefits of economic growth, there has been increasing attention on assuaging these with cautions about related costs. The benefits included the fantastic economic development; partnerships with oil companies; decreases in traditional social welfare and cash assistance programs in the oil patch; and the potential for building long-term community capacity beyond the oil boom.

#### *Fantastic economic development*

The directors recognized the abundant job opportunities and the state’s economic prosperity but almost always added references to related detriments. From the epicenter, one director stated the obvious, “there are jobs and there are good paying jobs” (LR). Another director from a county and reservation on the periphery of the patch noted the reservation’s ongoing pernicious conditions; “no housing, poor water, poor roads, poor sanitary conditions...that’s the reservation for you” (VG). While appreciating the copious employment opportunities, he cautioned that “about 10% of the people are making a profit from the oil wells and 90% have to put up with the problems.” Overall, there was recognition that county governments are “getting more money coming from everywhere and it’s amazing,” and that North Dakota is “one of the only states in the country that’s

actually in the black” with a one billion dollar surplus. Insinuating that the current prosperity is creating blinders one director blatantly stated “it’s all about money.” The fantastic economic development that has come with the oil boom has had both benefits and consequences.

This is largely confirmed by the outside data where reports of the boom’s economic success are increasingly coupled with its detrimental impacts. Multiple newspaper articles, legislative testimony, and survey results and outreach meetings with western North Dakota residents have highlighted the state’s copious benefits including the nation’s fast growing economy and increasingly impressive rankings in U.S oil production<sup>9</sup> (Holeywell, 2011; Jenkinson, 2011; Havens, 2012; Haris, 2012; Sullivan, 2012; NDLM, 2012; DSU, MSU, & GPEC, 2011). At the time of the focus group North Dakota had the lowest unemployment rate in the country at 3%, compared with the national average of 8.2%, according to the U.S. Bureau of Labor Statistics (2012). In a state that has largely experienced population decline for much of the last century, immigration has raised the state’s population to its highest level in eight decades (U.S Census Bureau, 2012). In addition to abundant job opportunities, the average annual wage is rapidly increasing. In Williston, the boom’s epicenter, the average annual wage increased 20% over the previous year and 80% since 2006 (Bekkedahl, 2011). However, outside data also underscores the costs of rapid economic development. For instance, in legislative testimony just two weeks after the focus group, city commissioners from the oil patch recognized economic prosperity, while also requesting billions of dollars in

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<sup>9</sup> At the time of the focus group, the state ranked fourth, but by May 2012 North Dakota had risen to second place, trailing only Texas, in oil production (Associated Press, 2012).

funding to expand and repair infrastructure (NDLM, 2012). From Williston, ground zero of the boom, the commissioner states,

We are very appreciative of what this industry brings in terms of growth and employment, but the majority of our residents have not seen direct benefits from the development so far... Our residents have endured significant economic, social, and emotional stress these last three years. (NDLM, 2012, Appendix J, p. 1).

A couple weeks following the focus group, CNBC published an article comparing mostly favorable attitudes about the boom six months prior to current recognition of growing problems (Shactman, 2012).

The County Directors and the outside data both indicate that the oil boom's economic development has increasingly paired with its alarming impacts.

#### *Partnerships with oil companies*

The directors indicated that one of the benefits of the boom has been substantial oil company donations to better the community. While recognizing the multiple challenges the boom has brought, the directors cited several examples of charity from the oil companies. A director from the heart of the oil patch remarked that county governments are receiving substantial revenues from oil companies "who are also helping to subsidize dust control, road repair...they are right there realizing they are the ones who are causing it so they are going to help compensate" (TP). Similarly, a director from the periphery of the patch stated oil companies repaired roads in an oil-producing county "that the township supervisors were not willing to do" (JM). A participant from a core county noted that apart from assistance with deteriorating roads, donations from the oil

companies have taken the form of Christmas gifts for children and food baskets. In an oil patch county also contending with the aftermath of severe flooding, the director stated oil companies have provided financial relief to flood victims “in the millions [of dollars]” (CB). Additionally, companies are engaging studies about matters such as increased high school dropout rates (JM). From the patch’s epicenter, a director summarized that oil companies “want to be part of the community too in a way to provide” (LR).

The limited documentation of partnerships with oil companies as well as other considerations regarding the nature of rapid energy development seems to signify that oil companies’ potential altruism is occurring to a much lesser degree than indicated by the directors. Outside sources indicate only modest philanthropic activity. A notable exception is the Hess Corporation’s donation of \$25 million to fund a statewide education program; however, the donation may have self-interest as the monies will be used to help “create jobs in North Dakota” and “prepare young people for careers in a dynamic and growing industry” (North Dakota Department of Commerce, 2011). More moderate donations included a \$1 million and \$25,000 donation to North Dakota flood relief efforts from the Hess Corporation and Occidental Petroleum Corporation, respectively (North Dakota Office of the Governor, 2011; Peterson, 2011). A much smaller contribution from Marathon Oil was for road signs (North Dakota Petroleum Council, 2012). Otherwise, there was virtually no mention of donations from oil companies according to testimony from an interim legislative hearing held just two weeks after the focus group was conducted. Thanking the state legislature for previously allocated funding, the city and county leaders detailed the need for more funding, especially in the areas of infrastructure. While it seems that if oil company donations would be acknowledged in

the testimony, the only mention of speculative oil company assistance came from a township officer. He was paraphrased as stating

Most oil companies will work with a township, but when putting in the oil well the oil company knows it will destroy the road and does not want to put any money into the road until after the well is in (NDLM, 2012, p. 4).

Thus, oil companies may aid in repairing roads damaged by industry activity, but this appears to be driven by self-interest rather than altruism. Instead, it seems clear that philanthropic responses from the oil companies are far from adequate in relation to both funding requests and the costs incurred from industry impacts such as spills and leaks as well as less direct impacts like homelessness (Kusnetz, 2012; Lee, 2010). For instance, the Williams County director (Type 1) spoke of an oil company donating Christmas gifts for homeless children though the actual number of homeless children at that time was at least five times greater—and this is in a county that had no homelessness prior to the boom (Williston Public School District, 2012).

Outside data sources confirm charitable activity from the oil industry, but it appears that their motives may be less humanitarian than suggested by the directors.

#### *Reduced cash assistance needs in the oil patch*

Minimally referenced, two directors from the oil patch noted experiencing reduced cash assistance needs. Identifying a benefit of North Dakota's rapid economic development, a director from the epicenter of the oil boom, stated "our economic assistance numbers have been down." She went on to say that needs have been decreasing "for a while" and are currently "maintaining level" (LR). A participant from another oil producing county added "our food stamp caseload went down..." (CB).

While the topic is sparsely represented in the data, the directors' observations yield mixed reviews (B. Quigley, personal communication, December 13, 2011; DSU, MSU, & GPEC, 2011; NDLM, 2012; Associated Press, 2011). A university in the oil patch surveyed western North Dakota residents as well as conducted outreach meetings in the west. An anecdote from these communication venues names that "fewer people are receiving economic assistance" (DSU, MSU, & GPEC, 2011, p. 12). Similarly, a director not present at the focus group observed "our fuel assistance program has seen a dramatic decrease in numbers compared to five years ago" (B. Quigley, personal communication, December 13, 2011). However, he also remarked that more community members are seeking "food basket[s] because their whole check went to pay rent" (B. Quigley, personal communication, December 13, 2011). This was corroborated by a newspaper article reporting that western North Dakota has the greatest need for food pantries. In fact, in a city near the epicenter of the boom, nearly 12% of the population regularly seek food assistance (Associated Press, 2011). Furthermore, during an interim committee meeting held just two weeks after the focus group, two county commissioners from the oil patch remarked that economic assistance requests have increased (NDLM, 2012, Appendices P & Q). In particular, one county has seen issuances of food stamps increase twofold from "pre-oil impact" to the present (NDLM, 2012, Appendix Q, p. 7).

The focus group's limited references to decreasing needs for economic assistance and ambiguous reports from outside sources make it difficult to formulate clear conclusions. The issue is complex due to the multiple variables the oil boom brings such as rapid population growth and difficulties in tracking demographic data. Changes and trends in economic assistance data vary from county to county and across different

programs. Because of this and the data's mixed results, it is difficult to draw conclusions as to whether an abatement of needs for economic assistance is a reality.

### *Building community capacity*

While only briefly mentioned, another apparent benefit of the boom includes demonstrations of community support to the newly arrived population. An epicenter director provided a detailed example of churches engaging outreach including weekly dinners “open to anybody that wants to come including those from the community and those new to the community” (LR). Volunteers are stationed at each table to give information about the community free from any explicit religious discussion. Capitalizing on their assets, civic associations “are trying to do something to provide for people” (LR).

### *Challenges to Solutions*

The focus group considered not only the strengths and challenges of the oil boom, but also ideas for best solutions. The three main issues in this section include the need for new terminologies and processes to deal with the changing realities of the boom; funding concerns; and novel organizational and service delivery needs.

#### *The need for new terminology and tracking mechanisms to reflect changing realities*

Second only to housing challenges, the matter most extensively discussed during the focus group concerned the struggle to define and track the rapidly changing conditions. Homelessness and abuse/neglect issues are at the forefront of social services' current concerns, but novel circumstances with multi-family living situations and vehicle/RV/trailer residences (man camps) complicate assessment efforts and the need for operational definitions. For instance, the directors were not able to reach a consensus about how to define either homelessness or neglect in the oil patch. One epicenter

director stated that “anyone that is living in temporary housing which includes those residing in campers and anyone in a multi-family living situation” should be considered homeless (LR). However, a director from a neighboring county pointed out examples of individuals “living in trucks where their job is 2-3 days per week” indicating that these individuals should be categorized as transient rather than homeless (TP). Directors also disagreed about child neglect. A participant from a heavily affected county stated that inhabiting an RV wouldn’t necessarily be considered neglect, but “there are issues with children” living in a car (LR). Yet, another core county director provided an example of a family residing in their van, illustrating that all their basic needs were met. The family “plugged into a power source in our parking lot, took showers in our office, ate in their van, and got their kids to school on time” (CB). However, a third director, distant from the oil patch, noted that “families living in small campers for extended periods of time” is not specific to a boom area (CA). “All over the country,” parents may be gone for extended periods of time due to other occupations such as “a traveling salesman” (CA). Consequently, each situation needs to be assessed on a case by case basis. While children living in a car might warrant a report, though “not necessarily equate to abuse or neglect,” it is clear that discrepancies in terminology complicate service delivery (CA).

In addition to and in relation to terminology discrepancies, the directors made repeated reference to obstacles in accurately *tracking* issues such as homelessness and abuse/neglect cases. The housing crunch may lead to forms of homelessness or other substandard conditions, yet individuals and families may be experiencing an overall net gain in their quality of life due to employment in the oil field. Consequently, as two epicenter directors noted, because these individuals aren’t seeking social services, current



tracking methods, such as a point-in-time homelessness studies are insufficient<sup>10</sup> (LR; TP). Accordingly, a patch director stated, “I have no way to find out how many homeless are living in our area” (TP). A director from one of the most impacted communities in northwestern North Dakota stated that currently, “the school has the best gauge of homelessness,” yet “nobody really knows how to pull it all together.” For instance, the school system is struggling with whether or not to “report families living in vehicles with kids” fearing that families might avoid the school system (LR). Furthermore, families are reluctant to admit living in their vehicles due to fear of social service reactions. This makes identifying and determining whether “kids are going to school” particularly difficult (LR). As one director noted, “we simply have no way of tracking them” (TP). Thus, it is likely that homelessness and neglect situations are more prevalent than reported.

Though not abundant, data from independent sources reflect the directors’ concerns (NDLM, 2012; 2<sup>nd</sup> Focus Group; Associated Press, 2012; Thompson, 2011). For instance, the other focus group of human service employees discussed discrepancies in defining homelessness (2<sup>nd</sup> Focus Group, 2012). A participant stated that homeless shelters are not considering individuals homeless who have a home in a different state, even if they are currently living in a vehicle. Yet, another social worker indicated that residing in an RV/vehicle *would* be regarded as homeless (2<sup>nd</sup> Focus Group, 2012). According to an oil patch journalist, one barrier to accurate measures are individuals unwilling to be forthcoming about their situation. She states,

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<sup>10</sup> The point-in-time survey obtains its count by tallying the number of individuals seeking social services on a particular day who meet the criteria for an established definition of homelessness.

I know of 3 people in Crosby who have been made to become homeless in the last year because of the changes in property ownership; however they aren't willing to be identified. They are proud people who have lived in town their whole lives [and] don't want to be labeled as homeless. (Thompson, 2011).

Also moderately represented in the data are challenges in tracking issues amid the dynamic context of the boom. Specifically, the second focus group noted lacking adequate tracking mechanisms to accurately capture data from various human service programs. One participant voiced, "It's easy to see a broken down road...as well as the damage that's done to vehicles. You can take the pictures. But how do you show the social impact on the local communities?" (2<sup>nd</sup> Focus Group, 2012). Data from police reports is easier to track but without accurate population data, it is not possible to fully ascertain if various issues are disproportionate to demographic changes. For example, city leaders dispute 2010 census data believing that actual populations may be from 20% to 177% higher than reported (NDLM, 2012, Appendix H & L). A newspaper article quotes the chairperson of the North Dakota Census Committee in the state Department of Commerce, as saying "the census estimates for the Oil Patch are too low" (Associated Press, 2012). He also stated that it is "difficult to measure migration in rapidly growing areas," as the thousands living in crew camps are not counted (Associated Press, 2012). Amongst the boom, a fast moving target, county and city leaders, in a legislative hearing held just two weeks after the focus group, also expressed struggling to track the needs of western North Dakota (NDLM, 2012). Illustratively, a report released in February of the findings from a January tour of western North Dakota cities, was updated just a couple

months later in attempts to keep pace with the constantly changing conditions (North Dakota Office of the Governor (NDOG), 2012).

The County Social Service directors gave the most attention (with the exception of housing challenges) to the insufficient terminology and tracking methodologies in the context of North Dakota's rapid energy development. Although not prominent in data, evidence suggests new language and tracking methods are needed to mitigate the personal and social costs of the oil boom.

*Barriers to sufficient response from the state legislature*

The directors were clear that increased funding for social services is imperative to keep pace with emergent needs. From the heart of the oil patch, a director illuminated need for more staff, "but no additional funding to do that" (LR). Directors noted they are recurrently forced to balance staffing needs with insufficient budgets. Consequently, a Type 1 director is presently being faced with letting a trained staff person go in spite of a likely future influx of clientele, stating, "It's kind of a constant battle of what you do with staffing" (LR). Funding requests made by County Social Service Directors generally go to County Commissioners who in turn testify at the state legislature. However, participants agreed that extra funding has largely gone towards roads and infrastructure. As a core county director put it, social service needs "are a drop in the bucket compared to roads, so the commissioner's focus was more on roads than what [the boom] is doing to our community." The directors mentioned that another advocacy route is their legislative committee or even testifying independently. However, he noted, "it's an uphill battle for us" (SR).

The funding concerns noted by the directors are supported by outside sources (NDLM, 2012; NDOG, 2012; DSU, MSU, & GPEC, 2011). A participant from the other focus group of human service employees stated, “You look at the millions and millions of dollars in revenues, and I’m not saying we shouldn’t put that money into the infrastructure and roads, but there was nothing for social services” (2<sup>nd</sup> Focus Group, 2012). Another social worker reiterated these concerns: “I don’t think the legislators truly get the impact that this has on the population” (2<sup>nd</sup> Focus Group, 2012). Just two weeks after the focus group of social service directors, an interim legislative committee hearing on the impacts of the oil and gas industry, focused primarily on replacing existing and/or adding new infrastructure, repairing and expanding road systems, and addressing the housing shortages. Social service needs were mentioned by only a few County Commissioners with little follow-up (NDLM, 2012). The governor released a report a month after the focus group with County Directors, which outlined the primary challenges facing the state as transportation, housing, safety in terms of emergency response and traffic management, and planning and coordination. There was no explicit reference to social service needs (NDOG, 2012).

The county directors were adamant about not receiving adequate funding for increased social service needs. The outside data and reporting sources overwhelmingly confirmed their concern.

#### *New challenges to human service systems*

Another topic under the heading *Challenges to Solutions* came from the directors’ contentions about novel areas of organizational life and service delivery. As employers, the directors spoke of the hiring challenges, primarily related to the housing crunch. A

core county director offered the solution of “subsidiz[ing] people by giving them a housing allowance,” but noted struggles with employee equity in terms of employees who already “own their homes” (LR). Additionally, one director noted only being able to hire students who are fresh out of school “because they are the only people who want the jobs” (CB). Another director stated that in all her years as a director, “this is the first time where” all the applicants have been from out of state (LR).

There are other, unexpected challenges. A director from the heart of the patch stated, new community members getting on Medicaid “have to name a primary care physician and the doctors are saying, we aren’t taking any more patients” (LR). She indicated that social service providers are working with the state to determine a solution such as naming a physician at a walk-in clinic or in a different town. However, the dearth of medical care access continues to be a concern. Additionally, social services are confronted with increased homelessness coupled with an inundated homeless response system. As a response to this quandary, an oil patch director gave an anecdote of a family living in their van in the agency parking lot. With a working van, the family was supplied gas money to return to their place of origin, summarizing, “We have been sending homeless people back to their homes” (CB). Thus, the oil boom appears to be creating new difficulties for social services, both on an employer/employee front as well as a service delivery.

## CHAPTER V

### DISCUSSION AND IMPLICATIONS FOR THE SOCIAL WORK PROFESSION

The intent of the present study is to provide a more empirically grounded account of “the impact of North Dakota’s oil boom on the state’s social service systems” by conducting a focus group, analyzing the findings, and “triangulating the [findings] with outside sources” (Weber, Geigle, & Barkdull, in press, p. 20). The study provides a preliminary measure of the boom’s social impacts, points to areas of interest for future scholarly work, and suggests avenues to mitigate some of the negative effects of the boom. Following a summary of the study’s findings, future areas of research are proposed, and implications for the social work profession are discussed, including means for utilizing the study’s finding as well as for providing social work interventions to address some of the boom’s challenges.

#### Summary of findings

The focus group’s discussion on the impact of western North Dakota’s oil boom on the provision of social services across the state yielded a blend of illustrative benefits and challenges. Three higher-order themes (Housing and Social Challenges, Benefits, and Challenges to Solutions) captured fifteen categories that emerged from the qualitative data analysis. With notable exceptions, the extrinsic sources (e.g., legislative testimony, government agency reports, and a 2<sup>nd</sup> Focus Group) generally confirmed the focus group’s findings.

Substantiated by the focus group and multiple, extrinsic sources, housing is a fundamental nexus issue. The directors spoke at length about significant rent increases paired with a shortage of available housing. These conditions have precipitated many individuals into desperate situations such as substandard living conditions or even homelessness. While housing was the dominant concern, the directors also discussed various social challenges connected to the oil boom. The directors illuminated other rippling effects stemming from housing issues, including child welfare concerns, including that the absence of affordable housing forces some into crowded multi-family living arrangements or inadequate homes. The focus group, to a lesser extent, mentioned increased domestic violence, overwhelmed law enforcement, and unprecedented traffic problems and deteriorating roads. Although aligned in content, the triangulated data's more extensive illustration of the aforementioned issues implies that these negative consequences may be actually occurring on a larger scale. Moreover, although absent from the focus group's discussion, the data suggests the housing crunch is the greatest barrier to effectively mitigating domestic violence issues. Possibly accounting for this discrepancy is the social service system's limited provision of services for victims of domestic violence. Additionally, the directors' minimal attention to traffic problems and deteriorating roads stood in contrast to outside data that specifically mentions the difficulties encountered by social services due to the nearly impassable roads. And finally, other, less fully discussed themes included cultural tensions and rapid social change, environmental issues, and property tax concerns. Among these, while environmental issues have received a moderate degree of consideration in the data, the other subjects were covered to an even lesser extent.

The directors noted benefits, yet tended to pair them with negative consequences of North Dakota's oil development and production. While economic development has a greater representation in the data than in the focus group, the notion that prosperity comes at a cost is becoming a more salient depiction of the region's dramatic growth. Although participants portrayed generous donations from the oil companies as a key benefit of the boom, evidence of these donations was not readily evident. Furthermore, the inequitable relationship between the oil companies' apparent response and the reality of the oil industry's costs was not deliberated by the directors. Suggestions that the oil boom has reduced the need for traditional social welfare in the form of cash assistance was not significantly substantiated by outside data. Instead, economic assistance numbers not only vary from county to county in the oil patch but also within the different programs existing underneath the umbrella of economic assistance. Overall, the few claims of reduced cash assistance were neither confirmed nor contested by outside data.

In addition to deliberating the celebrations and hazards of the oil boom, the directors explored avenues to address challenges. The lack of adequate terminology or tracking mechanisms to capture the new realities of the oil boom was, with the exception of housing, the most copiously discussed theme of the focus group. Although the data gives attention to these issues, outside data indicates that these issues are less significant. This could be due to the difficulty of not only identifying these issues but also articulating them. Additionally, a multitude of other issues such as heavy traffic, deteriorating roads, or lack of suitable housing, are more conspicuous, leading to sensationalized and greater media coverage. Consequently, the deficiency of a universal language or tracking mechanisms may be more germane than the data suggests. The



directors also spoke about the requisite additional funding necessary to meet significantly increased human service needs. Outside data largely supports the necessity of more social services funding. Policy makers' almost exclusive focus on improving roads and infrastructure represents one of the barriers complicating efforts to garner adequate funding. Lastly, the directors briefly mentioned that renewed challenges in delivering services and managing agencies are compounded by the oil boom.

The analysis of the focus group results, based upon triangulation data from multiple sources, yielded a rich body of information about the impact of North Dakota's oil boom on social service systems. Illustrating the ways the oil boom has changed the delivery of social services, the study findings support the social disruption hypothesis that is prevalent in the literature. The long term effects are difficult to discern as this is a point in time study. Additionally, it seems this boom is unique in that it is projected to last for many years. The findings clearly support that the lack of suitable housing is the region's principal issue. The two other ubiquitous themes which emerged from the focus group were child welfare concerns and the difficulty in defining and tracking living conditions in a rapidly changing environment. Economic development, housing, and transportation, were clearly corroborated, and overall, there was relatively consistent overlap between the focus group results and the triangulation data. The findings suggest that the oil boom has overwhelmed the rural infrastructure, yet opportunities emerge amid the social disruption.

#### Recommendations for future research

North Dakota's oil boom is a complex and rapidly changing phenomena. The deficit in scholarly accounts of the boom's social impacts prompted the present study.

Appraising the boom-related literature and study findings as well as examining their limitations expose future areas of research including the following recommendations.

Essentially, as demonstrated in the literature review, there is a need for more scholarly research on the human costs of the oil boom, a fast moving target, projected to last for years. Thus, conducting similar studies at two to four year intervals would provide insight into the degree to which certain issues persist. The present study provides baseline data to support a more comprehensive, longitudinal study. While a focus group of social service directors captures a component of the social costs, it is limited in scope. Future studies could include focus groups of other human service organization providers such as directors from human service centers, domestic violence centers, clinics and hospitals, senior service centers, youth programs, and residential treatment facilities. Following homogenous focus groups, other studies may consist of mixed participant focus groups, representative of the above named organizations. Exploring how the providers are responding to emergent issues and evaluating responses could assist in developing interventions aimed at mitigating the boom's impacts. To more inclusively capture the boom's impacts on the entire human service delivery system would require gathering perspectives from not only agency leaders but also their employees and the populations they serve. Specifically, the voices of aging adults, women, ethnic minorities, sexual minorities, indigent populations, and the newly arrived population, need to be heard.<sup>11</sup>

While there are manifold benefits to utilizing focus groups as a data collection method, individual interviews may provide opportunities to explore some of the issues

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<sup>11</sup> Future areas of research specific to social work are explored in the following section.

with more depth. Other methods, both qualitative and quantitative, should be employed in future studies to allow findings to be compared and contrasted, leading to a richer understanding of collective social costs. Finally, coordination and collaboration among different disciplines and organizations is imperative, and should occur as much as possible, especially within and between universities. Interdisciplinary work enhances credibility as literature, methodology, and findings are analyzed from varying viewpoints. Coordinating research within and among different organizations prevents overlap and the duplication of efforts leading to a deeper understanding. Findings can then be compiled to more accurately capture results on complicated and vast topics.

The present study serves as a guidepost for future scholarly accounts of the social impacts of North Dakota's oil boom. This study suggests that social impacts are best analyzed by exploring the boom's influence on the entire human service system and those served. Possible avenues involve capturing the voices of the directors, employees, and clients of many human service organizations across the state. Employing varied data collection methodologies with coordinated and collaborative research efforts can lead to more effective studies of the dynamic and complex realities of the boom. Research studies can be utilized to inform future areas of work as well as potential interventions to alleviate negative impacts, such as guiding policies to foster beneficial outcomes. This study provides a building block which strengthens the foundation of future research in the area.

#### Implications for the Social Work Profession

The social work profession is undoubtedly affected by North Dakota's latest surge in oil and gas development. The significance is profound when considering that the

profession emerged “as a response to social problems created by the industrial revolution and urbanization” (Davenport & Davenport, 1979, p. 129). The similarities between North Dakota’s oil boom and the industrial revolution are apparent as both were prompted by technological advances creating mass migrations to industrialized hubs (Netting, Kettner, & McMurtry, 2004). Their resemblance is reinforced in comparing the revolution’s attendant social costs with study findings such as housing challenges. As illustrated in the following sections, the implications for the social work profession emerge in juxtaposition with the primary mission of social work and its core values.

*Study findings through a social work lens*

In the fall of 2012, the Chief Executive Officer of the National Association of Social Workers (NASW), Elizabeth Clark<sup>12</sup>, presented at the University of North Dakota (UND) Social Work Annual Homecoming Event. She asserted that the social work profession’s person-in-environment perspective and commitment to advocacy defines and differentiates it from other professions: “Nobody does those things like social workers do” (Clark, 2012). This perspective is based on the notion that individuals and their behavior cannot be adequately understood without considering the multiple aspects of their environment (e.g., social, familial, political, cultural, spiritual, physical) (Cournoyer, 2011). Social systems theory, a foundational social work theory, encapsulates the person-in-environment perspective. This theoretical approach considers individuals as the “client” whereas “‘client’ is used” as an inclusive reference to “individuals, families, groups, organizations, and communities” (National Association of Social Workers

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<sup>12</sup> In March 2013, Dr. Clark stepped down as NASW’s Chief Executive Officer. She was succeeded by Dr. Angelo McClain (NASW, 2013).

(NASW), 2008). The client is a complex system embedded in other systems which are constantly interacting with one another (Netting, Kettner, & McMurty, 2004). Thus, the primary mission of social work is to continually examine the interconnected web of environmental forces to intervene and enhance client well-being, with emphasis on vulnerable and oppressed individuals. The intervening piece is synonymous with advocacy and takes on a variety of forms such as research, education, community development, mental health services, and policy work, among others. Social workers are committed to promoting social justice including issues that impact client quality of life, such as having unmet basic needs. In viewing the study findings through a social work lens—especially through the client-in-environment framework—social and environmental justice issues emerge along with advocacy obligations to address housing and environmental issues, along with the need for more social workers.

One component of social justice requires that advocates strive to assure that *all* individuals have their basic human needs met. The oil boom has resulted in a shortage of housing, especially affordable and adequate housing. This shortage has a particularly noticeable impact on vulnerable populations, such as elderly and disabled individuals on fixed incomes, and children. The housing issues have forced individuals and families into multi-family living situations, substandard conditions such as residing in cars, vans, or inhabitable homes, or left them homeless. Many elderly and disabled individuals who have lived in their homes for years have been displaced as a result of rental price gouging.

Environmental justice is focused on guaranteeing that all individuals live, work, and recreate in a healthy environment, with attention to minimizing pollution. The oil

boom has impacted the physical environment of western North Dakota. Examples include lingering airborne dust particles lifted by intense road traffic, noises and odors emanating from drilling sites, carbon dioxide, nitrogen oxides, sulfur dioxide, and ashes emissions resulting from natural gas flaring and oil pit burns, and unregulated chemical fluids used for hydraulic fracturing, which have been proven to migrate into aquifers and water wells (Libert & Druckerman, 2011; Myers, 2013). The deterioration of air and water quality has long-lasting implications for the quality of life and public safety of local communities, such as respiratory illnesses and water-borne poisoning (Myers, 2013).

The oil boom has overwhelmed the rural infrastructure, creating increased social service needs, and consequently the need for more social workers. This issue is compounded by a preexisting shortage of rural social workers, a lack of funding, and a shortage in housing. Furthermore, new and current social workers are challenged by the new and dynamic environment as the context social work is being done in has become much more complex.

*Means to utilize study findings through a social work lens*

Considering the primary mission of the social work profession, there are multiple ways to utilize the study findings. Social challenges are exposed in the findings. Therefore, because social workers are charged with preventing and ameliorating social problems, they are ethically bound to give attention to North Dakota's oil boom. Using the study findings and employing the person-in-environment perspective, future areas of research and potential interventions to mitigate the boom's challenges are discussed below.

## *Research*

Social workers have an ethical responsibility to “contribute to the knowledge base of social work” and use research to inform their practice (NASW, 2008). Upholding the profession’s core value of social justice, research on the oil boom should involve capturing and considering *all* voices and perceptions, especially those of the most vulnerable. Social workers need to humanize the boom’s social costs by personifying the struggles of those who are impacted. The discrepancies between those who benefit from the boom and those who suffer must be examined. Examples of studies illuminated by the findings include 1) housing, 2) Native American communities, and 3) interventions in other oil booms.

*Housing:* The findings made clear that housing is a central issue that deserves responsiveness. Studying the lack of suitable housing may lead to the creation of causal links with other areas, since housing is a nexus issue. Participatory action research<sup>13</sup> is a method recommended for gathering information from community members. This method seeks to reflect the experiences of individuals most directly affected by the housing shortages, thus pointing to more relevant solutions. Accessing the perspectives of *all* community members is key to more comprehensively studying the housing issue. These include long term residents, with particular attention to those on fixed incomes and other vulnerable populations, as well as local and state policy and decision makers. Examining housing access, adequacy, and affordability among the newly arrived population would

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<sup>13</sup> Participatory action research (PAR) aims to involve participants directly affected by an issue in the research process. By purposefully enlisting participants in the entire research process, they are empowered to define problems areas and resultant solutions on their own behalf (Rodgers-Farmer & Potocky-Tripodi, 2001).

also be pertinent.<sup>14</sup> Interventions to address housing problems such as advocating for certain policies like rent control legislation are likely to unfold from study results.

*Native American communities:* The oil boom's impact on Native American communities is another social justice matter that prompts further research. The social service director of Sioux county, which lies entirely within the Standing Rock Reservation, made a particularly poignant statement during the focus group. He indicated that the relatively novel challenges faced by oil patch counties, such as lack of suitable housing and deteriorating roads, are ongoing struggles on reservations. In fact, the Fort Berthold Reservation is located entirely within North Dakota's oil patch and the Standing Rock Reservation is located on the periphery of the patch. An article published in the North Dakota Law Review on the impacts of the oil boom on the Fort Berthold Reservation asserts that there is a need for more attention to the implications of the oil boom for Native American communities and reservations.<sup>15</sup> Research is especially important in considering the reservation's "geographic, legal, and socio-cultural differences [which] set it apart from the rest of North Dakota" (Cross, 2011, p. 541). American Indian and Alaska Natives make up 5.5% of North Dakota's population, and constitute the second largest ethnic group after European Americans (U.S. Census Bureau, 2012). From a social work perspective, while the portion of First Nations people in North Dakota speaks to the magnitude of the issue, it is irrelevant to the need to study

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<sup>14</sup> Presently, the PI of this study is spearheading an interdisciplinary research project, titled *The North Dakota Man Camp Project*. The project's aim is to explore the hardships and resilience of those living in workforce housing in western North Dakota (<http://www.northdakotamancamps.com/>).

<sup>15</sup> Presently, the PI and co-researcher (MSW director) are involved in a long-term, interdisciplinary project examining the impact North Dakota's oil and gas development and production on the Fort Berthold Indian Reservation (B. Weber, personal communication, June 27, 2013).



the American-centric oil and gas development's impact on this disenfranchised population. Given the manifestations of historical oppression and ongoing dehumanization faced by First Nations peoples, participatory rural appraisal<sup>16</sup> appears to be a potentially effective method.

*Interventions in other oil booms:* In addition to innovative research, social workers are also accountable for appraising the historical social work research. The work of Judith Ann Davenport and Joseph Davenport, III, is a notable contribution to the largely absent boom-related social work research. Along with an interdisciplinary team at the University of Wyoming, the Davenports developed and implemented a project, the Wyoming Human Services Project (WHSP), to mitigate the human problems in impacted communities. Davenport and Davenport (1979) stated the purpose of the project was

(1) to determine how best to train and use human service personnel (e.g., social workers, nurses) to solve the 'people problems' which inevitably accompany the rapid social change found in communities undergoing impact and (2) to derive guidelines and suggestions for other communities in similar situations about how most effectively to cope with human service problems found in impact conditions.

Major project components [included] a university based training program and a community based service program (p. 136).

The community component involved sending trained interdisciplinary teams to impacted communities who requested assistance. The teams helped the communities define impact-specific problems of service delivery and develop measures to alleviate them. The aim

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<sup>16</sup> Participatory rural appraisal (PRA), researchers or community planners "tap into the analytical capabilities and values of local people, empowering them to share and analyze their knowledge of life and local conditions, as well as to plan and act" (Poole, 2005, p. 128).

was to “enhance the community’s ability and capacity to solve its own problems” (Davenport & Davenport, 1979, p. 137). The teams were careful not to impose their own definitions of problem areas. Several interventions were designed and implemented through this process. Examples included a discount program for senior citizens; a cooperative daycare program; and community workshops about creating community cohesiveness. The Davenports have written articles and presented at numerous social work conferences about the project’s history, implementation, and evaluation as well as recommendations to carry out the project in other impacted areas. Thoroughly researching the project and related work would assist in determining the project’s applicability to impacted communities in North Dakota.

Studying the oil boom’s impact on housing issues and Native American communities as well as evaluating relevant past advocacy work in other impacted areas are a few of the many areas social workers need to be research. Research is integral to better understanding the dynamic and complex realities of North Dakota’s oil boom. While research informs potential interventions to ameliorate the boom’s challenges, the present study points to interventions that can be explored concurrently with future research.

### *Interventions*

The study findings establish that basic human needs are not being met and that living conditions are compromised for many individuals as a result of North Dakota’s oil and gas development. As commitment to advocacy is integral to social work’s mission, social workers are charged with developing interventions to address these issues. Potential interventions have been elaborated from the study findings which engage all

system levels. These include 1) community development, 2) policy advocacy, and 3) support for additional services and providers to meet the needs of individuals, families, and groups.

*Community development:* Engaging in some form of community development to address concerns as a result of North Dakota's oil boom appears to be a useful intervention based on study findings and the rural social work literature. Cultural tensions between longer term residents and the newly arrived population and a lack of resources emerged from the study. Community development is well suited to address these challenges in rural communities (e.g., Locke & Winship, 2005). For instance, community development fosters communication among individual members and combats isolation barriers created by contextual factors. Depending on the research (see above section), community development in western North Dakota could reflect the community based service program of the Wyoming Human Services Project (WHSP), which was a needs-based approach. It could also employ the Asset-Based Community Development (ABCD) model as it is "especially useful in a rural context" (Locke & Winship, 2005, p. 7). In fact, *building community capacity* was an emergent theme from the focus group. The utility of ABCD is supported by the study findings as *building community capacity* was illustrated as a potential benefit of the oil boom. Specifically, a director detailed that a local church was purposefully cultivating a sense of belonging among the newly arrived population. ABCD involves practitioners and citizens collaboratively identifying available assets and connecting them in ways to help the community adapt to change (Locke & Winship, 2005).

*Policy advocacy:* The study findings suggest the applicability of policy advocacy to address such issues as funding deficits for social services, housing availability and affordability. Thus, a potential intervention could be lobbying for legislation to increase funding for social services and to mitigate housing challenges such as rent control legislation<sup>17</sup> or to redefine and expand subsidized housing regulations for those on fixed incomes. Additionally, a condensed and modified version of the study findings could be disseminated to policy makers to support the above described legislation. Empirically grounded, the findings may also prompt policy and decision makers to reconsider the scale and pace of development.

*Support for additional services and providers:* Study findings demonstrate that the social service system is overwhelmed, and the shortage of social workers is compounded by an increased need for services. This is compounded by the reality that, even with adequate funding, social services find it difficult to hire in the burgeoning economy because of the scarcity of housing options. Interventions to attract social workers out to western North Dakota should involve collaborations between social service agencies and universities with social work programs. This may include paying faculty members to do supervision, providing paid internships for students, and housing allowances or increased salaries as incentives to work in the oil patch following graduation. Additionally, similar to the WHSP, social work programs in North Dakota could integrate within their

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<sup>17</sup> Incremental legislation moving in the direction of rent control legislation would be a more practical route to explore. Currently, rent control is prohibited in the North Dakota Century Code (N.D.C.C.) and attempts to repeal this law have been dismissed by state legislators during the last two legislative sessions (F. Martel, personal communication, June 25, 2013).

curricula a component on the nature and issues resulting from rapid resource development.

The social work profession's multi-system level focus makes it uniquely qualified to address the complex challenges resulting from the boom. While the above named interventions may each concentrate on a different system, they are intertwined. For instance, community organizing may be a strategy to advocate for policies. Furthermore, advocating for certain legislation may be a solution identified by the community. Community development, policy advocacy, and increasing service providers are merely a few simplistic examples of the types of interventions which may be effective at targeting the difficulties created or exacerbated by the boom.

Examining the study findings through a social work lens makes it clear that social workers must be involved in helping client systems adapt to the changes brought by North Dakota's oil and gas development. Social and environmental justice issues are occurring amid the rapid growth in western North Dakota. The knowledge, skills, and values of social workers such as the person-in-environment perspective and commitment to advocacy appear well-suited to address these issues. Mitigation efforts should involve research occurring concurrently with interventions. Social work is the profession of hope. As Dr. Elizabeth Clark, Chief Executive Officer of NASW, proclaimed during her presentation at the UND Social Work Annual Homecoming event, "you are the holders of hope for the citizens here in North Dakota. That's a very powerful position" (Clark, 2012). Social work's entire repertoire of functions, from clinical, to research, to community organization, to policy formulation place the profession in a unique position to help impacted communities and the time for action is now!

## APPENDICES

## APPENDIX A

### Nomenclature of Focus Group Participants

<b>Location in Relation to Oil Patch</b>	<b>Text Reference (Director Initials)</b>	<b>Director Name</b>	<b>County(ies)</b>
<b>Epicenter of Oil Patch</b>	<b>LR</b>	<b>Lois Reiersen</b>	<b>Williams</b>
	<b>TP</b>	<b>Tom Picken</b>	<b>Dunn</b>
<b>In the Oil Patch</b>	<b>CB</b>	<b>Cleo Berven</b>	<b>Ward</b>
	<b>KJ</b>	<b>Kelly Jensen</b>	<b>Bottineau</b>
	<b>SR</b>	<b>Steven Reiser*</b>	<b>McLean, Mercer</b>
	<b>TC</b>	<b>Tami Chrest</b>	<b>Burke, Renville</b>
<b>On the Periphery of the Oil Patch</b>	<b>JD</b>	<b>Jolene Dewitz</b>	<b>Kidder</b>
	<b>CD</b>	<b>Cheryl Dix</b>	<b>Adams</b>
	<b>JM</b>	<b>John Mogren</b>	<b>Eddy, Foster, Wells</b>
	<b>KG</b>	<b>Kenneth Gerhardt</b>	<b>Morton</b>
	<b>MM</b>	<b>Michelle Masset</b>	<b>Emmons</b>
	<b>SR</b>	<b>Steven Reiser*</b>	<b>Oliver, Sheridan</b>
	<b>VG</b>	<b>Vince Gillette</b>	<b>Sioux</b>
<b>Distant from the Oil Patch</b>	<b>BK</b>	<b>Brooke Kosiak</b>	<b>McIntosh</b>
	<b>CA</b>	<b>Chip Ammerman</b>	<b>Cass</b>
	<b>HP</b>	<b>Heather Pautz</b>	<b>Barnes</b>
	<b>KB</b>	<b>Keith Berger</b>	<b>Grand Forks</b>
	<b>KJ</b>	<b>Kim Jacobson</b>	<b>Trall</b>
	<b>MB</b>	<b>Marcia Beglau</b>	<b>Griggs, Nelson</b>
	<b>SO</b>	<b>Sheila Oye</b>	<b>Steele</b>
	<b>TN</b>	<b>Twila Novak</b>	<b>Walsh</b>

\*Steven Reiser is the County Social Service Director of four counties, spanning across two typologies, thus he is listed twice.

## APPENDIX B

### Alternative Procedures Form

#### Human Costs of Western North Dakota's Current Oil Boom Wednesday January 11, 2012 – Focus Group

- 1) In what ways has the oil boom affected social services in your county?
- 2) How do you know the social services in your county are being impacted by the oil boom?
- 3) What do you want decision makers to know?
- 4) What are the positive ways that the boom has impacted social services in your county?
- 5) Is there anyone or any other organization asking you these types of questions? If so, which organization or individual(s) are checking into these matters?
- 6) In addition to the issues you've already identified, what new matters and challenges do you anticipate in the future?



## APPENDIX C

### Original Participant Consent Form

Human Costs of Western North Dakota's Current Oil Boom  
Primary Investigator, Bret A. Weber  
INFORMED CONSENT FORM

**Introductory Statement:**

Before we proceed with the interview, as the researcher, I wish to make you aware of the study's purpose and procedures. Once I have reviewed this form with you I will ask if you have any questions. The purpose of this research is to develop an understanding of the impact on social services in the oil producing counties of western North Dakota.

**Study Procedure:**

If you choose to participate in the study, I will interview you for a period of approximately 1 1/2 to 2 hours. The interview session will be tape recorded to assure accuracy and to facilitate possible transcription of the interview into a written document.

**Risks:**

It is believed that participation in this interview may involve minimal risk to you, though you may experience uncomfortable feelings, and your transcribed statements may be identifiable by context.

**Benefits:**

It is hoped that information from this study will be useful in developing a better understanding of the social costs of the current oil boom and the challenges faced by the social service workers serving those communities.

**Alternative Procedures:**

If you would prefer, you may respond in writing to a list of questions rather than a personal interview. Otherwise, the only other alternative is to not participate in this study.

**Confidentiality:**

Due to the nature of this sort of writing and analysis it would be preferable to identify your name, activities, attitudes and position in relation to events connected to the current oil boom. In accordance with this preference, full confidentiality and anonymity will not be maintained. While your privacy will be respected (regarding your present address, phone number, or other such contact information), your name and all other (non-contact) information obtained during the interview could potentially be included in the final product, which would then become part of the public record.

University of North Dakota  
Institutional Review Board  
Approved on OCT 17 2011  
Expires on OCT 16 2012

**Contact Information:**

After the interview, if you have any questions at any time about this study, or if you would like to add to or correct comments you made during the interview, please feel free to contact me at: Bret A. Weber, Gillette Hall Room 109-B, 225 Centennial Drive, Stop 7135, Grand Forks, North Dakota 58202. You may also call me at (701) 777-3767, or send e-mail correspondence to Bret.Weber@email.und.edu. If you have questions regarding your rights as a research subject, or if problems arise which you do not feel you can discuss with the Investigator, please contact the Institutional Review Board Office at (701) 777-4279.

**Voluntary Participation:**

While your willingness to participate in this study is appreciated, there is no compensation for your involvement. Your participation is strictly voluntary.

**Costs to Subject:**

There are no anticipated costs to the subject stemming from the interview process.

**Withdrawal:**

You can stop the interview at any time. At this point or at any time during the interview, if you wish to withdraw from participation you are free to do so without any penalty or retribution. You also have the option of skipping any individual questions you do not wish to answer and continue with the rest of the interview.

**Consent:**

By signing below, you are providing consent for participation in the research described in this form. You are also indicating that you understand the material in this consent form, and acknowledge receiving a copy of the form for your reference.

I \_\_\_\_\_ consent to being audio-taped.

Signature of Individual Giving Consent: \_\_\_\_\_

Date: \_\_\_\_\_

University of North Dakota  
Institutional Review Board  
Approved on OCT 17 2011  
Expires on OCT 16 2012

## APPENDIX D

### Updated Participant Consent Form

<b>REPORT OF ACTION: PROTOCOL CHANGE</b> University of North Dakota Institutional Review Board	
<b>Date:</b> 1/5/2012	<b>Project Number:</b> IRB-201110-086
<b>Principal Investigator:</b> Weber, Bret	
<b>Department:</b> Social Work	
<b>Project Title:</b> Human Costs of Western North Dakota's Current Oil Boom	

The above referenced project was reviewed by a Designated Member for the University's Institutional Review Board on January 6, 2012 and the following action was taken:

☒ Protocol Change approved. **Expedited Review** Category No. 7  
Next scheduled review must be before: October 16, 2012  
☒ Copies of the attached consent form with the IRB approval stamp dated January 6, 2012 must be used in obtaining consent for this study.

☐ Protocol Change approved. **Exempt Review** Category No. \_\_\_\_\_  
This approval is valid until \_\_\_\_\_ as long as approved procedures are followed.  
No periodic review scheduled unless so stated in the Remarks Section.  
☐ Copies of the attached consent form with the IRB approval stamp dated \_\_\_\_\_ must be used in obtaining consent for this study.

☐ Minor modifications required. The required corrections/additions must be submitted to RDC for review and approval. **This study may NOT be started UNTIL final IRB approval has been received.**  
(See Remarks Section for further information.)

☐ Protocol Change approval **deferred**. **This study may not be started until final IRB approval has been received.**  
(See Remarks Section for further information.)

☐ Protocol Change **disapproved**. **This study may not be started until final IRB approval has been received.**


**REMARKS:** Any unanticipated problem or adverse occurrence in the course of the research project must be reported within 5 days to the IRB Chairperson or RDC by submitting an Unanticipated Problem/Adverse Event Form.

Any changes to the Protocol or Consent Forms must receive IRB approval prior to being implemented (except where necessary to eliminate apparent immediate hazards to the subjects or others).

**PLEASE NOTE:** Requested revisions for student proposals **MUST** include adviser's signature. All revisions **MUST** be highlighted.

☒ Education Requirements Completed. (Project cannot be started until IRB education requirements are met.)

cc: Chair, Social Work

  
\_\_\_\_\_  
Signature of Designated IRB Member  
UND's Institutional Review Board

1-6-12  
\_\_\_\_\_  
Date

If the proposed project (clinical medical) is to be part of a research activity funded by a Federal Agency, a special assurance statement or a completed 310 Form may be required. Contact RDC to obtain the required documents.

(Revised 10/2006)

Human Costs of Western North Dakota's Current Oil Boom  
Primary Investigator, Bret A. Weber  
INFORMED CONSENT FORM

Introductory Statement:

Before we proceed with the interview, as the researcher, I wish to make you aware of the study's purpose and procedures. Once I have reviewed this form with you I will ask if you have any questions. The purpose of this research is to develop an understanding of the impact on social services in the oil producing counties of western North Dakota.

Study Procedure:

If you choose to participate in the study, I will interview you for a period of approximately 1 1/2 to 2 hours. The interview session will be tape recorded to assure accuracy and to facilitate possible transcription of the interview into a written document.

Risks:

It is believed that participation in this interview may involve minimal risk to you, though you may experience uncomfortable feelings, and your transcribed statements may be identifiable by context.

Benefits:

It is hoped that information from this study will be useful in developing a better understanding of the social costs of the current oil boom and the challenges faced by the social service workers serving those communities.

Alternative Procedures:

If you would prefer, you may respond in writing to a list of questions rather than a personal interview. Otherwise, the only other alternative is to not participate in this study.

Confidentiality:

Due to the nature of this sort of writing and analysis it would be preferable to identify your name, activities, attitudes and position in relation to events connected to the current oil boom. In accordance with this preference, full confidentiality and anonymity will not be maintained. While your privacy will be respected (regarding your present address, phone number, or other such contact information), your name and all other (non-contact) information obtained during the interview could potentially be included in the final product, which would then become part of the public record.

Contact Information:

After the interview, if you have any questions at any time about this study, or if you would like to add to or correct comments you made during the interview, please feel free to contact me at: Bret A. Weber, Gillette Hall Room 109-B, 225 Centennial Drive, Stop 7135, Grand Forks, North Dakota 58202. You may also call me at (701) 777-3767, or send e-mail correspondence to Bret.Weber@email.und.edu. If you have questions regarding your rights as a research subject, or if problems arise which you do not feel you can discuss with the Investigator, please contact the Institutional Review Board Office at (701) 777-4279.

Voluntary Participation:

While your willingness to participate in this study is appreciated, there is no compensation for your involvement. Your participation is strictly voluntary.

Costs to Subject:

There are no anticipated costs to the subject stemming from the interview process.

Withdrawal:

You can stop the interview at any time. At this point or at any time during the interview, if you wish to withdraw from participation you are free to do so without any penalty or retribution. You also have the option of skipping any individual questions you do not wish to answer and continue with the rest of the interview.

University of North Dakota  
Institutional Review Board

Approved on JAN 6 2012  
Expires on OCT 16 2012

Consent:

By signing below, you are providing consent for participation in the research described in this form. You are also indicating that you understand the material in this consent form, and acknowledge receiving a copy of the form for your reference.

I \_\_\_\_\_ consent to being recorded.

Signature of Individual Giving Consent \_\_\_\_\_

Date:

University of North Dakota  
Institutional Review Board  
Approved on JAN 6 2012  
Expires on OCT 16 2012

## APPENDIX E

### Focus Group Questioning Route

#### **1) In what ways has the oil boom affected social services in your county?**

- a. When did you start seeing impacts from the oil boom on social services?
- b. What does it look like? Can you help us track that journey? For instance, was the impact a sudden onslaught? Has the process been a more steady progression? Have the effects waxed and waned?
- c. How has the boom affected your ability to deliver services to county residents?
- d. How is the media covering the social service impact?

#### **2) How do you know the social services in your county are being impacted by the oil boom?**

- a. Are you gathering data that illustrates this impact? How are you documenting the impacts? For instance, are you tracking CPS reports on individuals who moved here due to the boom separately? If so, what kinds of patterns are emerging? Are there public records that we should be accessing?

#### **3) What do you want decision makers to know?**

- a. Who should know? What should they know? Specifically, what do you most wish policy and decision makers need to know and understand about your challenges?
- b. Tell us about the 2011 legislative session. What kind of attention was given to social services in the oil producing counties? Tell us about the testimony you presented. What resulted due to that testimony?
- c. What kinds of conversations have taken place about social service impacts between you and elected and/or appointed officials?
- d. Is there any one or any other organization asking you these types of questions? Who (else?) is checking into these matters?

- 4) What are the positive ways that the boom has impacted social services in your county?**
- 5) What new dynamics do you anticipate in the future?**
- 6) Is there anything that we missed? Is there anything that you came wanting to say that you didn't get a chance to say?**
  - a. Please contact us individually if there is anything else you would like to share that you didn't get to today
  - b. If it is okay with you, we may be contacting some of you individually to follow up on specifics you brought up here today

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